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A STUDENT'S VIEW OF
THE UNIVERSITIES

A STUDENT'S VIEW OF THE UNIVERSITIES

BY
BRIAN SIMON

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PREFACE

BRIAN SIMON was President of the National Union of Students in 1939-40. For a period of about two years he spent most of his time collecting material for this book by attending conferences and by constant contact with the most active and thoughtful students all over the country, with a large number of members of the staffs of universities, and with several Vice-Chancellors.

In this way he gained a knowledge of universities and of the views of the students such as has perhaps never been obtained before by a young man, while still approximately the same age as the mass of university students and in the closest possible touch with them. The book may, therefore, be taken as being an authoritative statement of the best student view in the years 1939-40.

I am glad that Brian Simon's book is to be published now. It covers a wide field, and gives a considered and stimulating statement of the student's point of view as to university reform. There is naturally a good deal in the book with which I may not agree, but I am confident that it will be of value not only to future students but also to those who are responsible for the control of the universities in considering the development of our university system after the war.

JOHN S. B. STOPFORD.

AUTHOR'S FOREWORD

THIS book was originally undertaken at the request of the National Union of Students, but on the outbreak of war the committee appointed to supervise its production ceased to function. Although individual officers of the N.U.S. have continued their interest in the publication, the opinions expressed here are those of myself only and should not be regarded as the views of the N.U.S.

My friends have urged me to publish the book now, as they are kind enough to think it may be useful in the discussions now beginning as to the reform of universities after the war. I am very conscious of its defects and should have liked more time to revise it. This, however, has not been possible because I have been in the army since 1940 and have latterly been serving abroad.

I thought it necessary to bring the book up to date as regards the activities of the N.U.S. and Mr Jack Allanson, who is now President of the N.U.S., has been good enough to re-write the last chapter to include an account of the N.U.S. Conference in 1943. I am grateful to him for his assistance.

I should also like to thank the many staff members who were most patient and kind in advising me during my investigation, and the large number of students, especially those actively concerned with the N.U.S., and the different Unions for their help.

BRIAN SIMON.

19th July 1943.

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TO
MY WIFE AND PARENTS
WHO HAVE MADE THIS
BOOK POSSIBLE

CHAPTER I

INTRODUCTORY

AT the present time the people of Britain, in alliance with a score of other nations, are engaged in a life-and-death struggle. Our most urgent task is victory and it is clear that the defeat of Hitlerite Germany is the first essential condition for the freedom of peoples and for the advance of science and culture.

But science and culture themselves have a vital contribution to make in the common struggle, and there has been no better expression of the part that they have to play than in the messages exchanged between the Moscow Society of Natural Science and the Royal Society: "We are firmly confident," writes the Moscow Society, "that the unity of science and culture in the two greatest countries in the world will greatly contribute to the early extermination of Hitlerism, the nightmare of humanity, and will create conditions for a renaissance of science and culture throughout the world." The reply of the Royal Society included the following paragraph: "The Royal Society confirms your conviction that the strength of science and culture in our two countries and the determination to uphold that freedom in which they thrive will aid in overwhelming the barbaric onslaught and the forces of evil which seek to enslave."

If we are to be true to the thought and feeling which underlie these messages it is essential that we in this country should not adopt a complacent attitude to the institutions that are concerned with these matters. On the contrary, we should constantly have them under review, expose defects and failures wherever they may be found, be ready to discover where improvements may be made, and be quick and eager to put those improvements into practice.

For unless we succeed in developing to the full all the cultural and scientific forces at our disposal, and unless we learn to use them consciously in the correct directions, we shall never achieve our greatest potential in the present vital

struggle nor shall we have the conditions in which, both during and after the war, we can begin to build a world where the injustices, inequalities and frustrations of the past will no longer exist.

It is largely from this point of view that the educational institutions of this country are so important, and the present popular interest in education is a sure sign that this importance is becoming increasingly recognized. In our educational system the universities occupy a vital strategic position, and it is with the universities that this book is concerned.

It is impossible to plan effectively for the future, even for the immediate future, unless the present is understood, and unless the social forces which lead inevitably towards change and development are consciously appreciated. For this reason this book attempts to relate the universities to the society of which they form an integral part, to show the main historical reasons for their growth and development, and to indicate their present position in the social process. Such an analysis is essential if the position of the universities is to be understood, and it is on this basis that the proposals for changing the universities are made.

This book, which is concerned fundamentally with science and culture, cannot avoid "politics," for in all their activities the universities act on society, and society reacts on the universities. To expect, therefore, that changes made only within the universities themselves can put right faults and failures whose causes are essentially social is no more than day-dreaming. For this reason no attempt has been made to avoid the implications of the conclusions arrived at. In fact the need for considerable social changes to be made before science and culture, and consequently the universities, are fully free to develop, is one of the main conclusions of the book.

The necessity of planning our resources during the war, so that the best use is made of what we have, and of planning the development of industry and society as a whole when the war is over, has already been mentioned. It has become generally recognized that we should no longer tolerate a position whereby the growth of society is allowed to continue in the haphazard and chaotic manner that existed before the

war, and that on the contrary it is entirely within the power of man to develop the resources of nature and to control society in a rational manner. This theory implies, therefore, that each and every institution of society should have a self-conscious direction, that it should be clear as to its aims and functions, and as to the manner of its development.

It is therefore extremely pertinent to ask how far the universities are clear as to their place in present-day society, to what extent they take into account modern conditions and modern needs—in short, how far they are consciously contributing to the rational progress of society.

It is extraordinary how little thinking and discussion on the problems of the universities has taken place during the last thirty or forty years. This may be partly because people have felt that on the whole the universities have been doing their job effectively so that there has been no call to question what they are doing or where they are going, while the universities themselves have certainly not been to the fore in self-examination and self-criticism. Thus Professor Carr-Saunders, referring to the growth of the universities, writes: "It is surely some evidence of a lack of interest on the part of the universities in their functions that out of the many historians, working or trained in universities, not one has given himself over to consider the nature and meaning of this unparalleled growth as a whole."¹

Perhaps the reason is partly that if the universities were examined in this way it would be found that all was not so well after all, and that certain fundamental changes were necessary which would demand thought and action that might prove uncomfortable. But whatever the reason, there is no doubt that the universities have grown up almost haphazardly, to meet the needs of the moment, and that their policy has been based on expedience rather than any well-thought-out plan. Such an attitude, however, is no longer defensible. Faced with the crisis of the present, and the possibilities of the future, it is a vital national duty of every social institution to re-examine in the light of modern values

¹ "The Function of the Universities in the Modern World," the Findlay Lecture delivered in University College, Dublin, May 24th, 1940. Reprinted in the *Sociological Review*, July–October 1940.

and modern needs its contribution to social development. And to-day there are thousands, even millions of people, who have determined that things shall no longer go on in the old way, and that we in this country shall not allow ourselves once more to get into the position of the post 1914-18 years, or of September 1939.

The most important single factor affecting the development of society during the last one hundred and fifty or more years has been the tremendous growth of scientific knowledge and modern technology. The harnessing first of the steam engine and later of electricity to the service of man, combined with technological and scientific advances in the design of materials and machinery, have revolutionized the prospects before mankind. They have enabled man to achieve a supremacy over nature, and to bend the vast resources of the world to his own uses for his own purposes. They have opened up limitless possibilities for the raising of the material and cultural level of the people.

The growth of industrial and commercial enterprise, which has been at once the impetus and the result of these advances, has changed the face of this and many other countries. The form of society, its prosperity, and the prospects it has offered to its citizens have in fact depended largely on its technical and industrial level. Since, however, the industrialization of the individual countries has taken place in an unplanned and unco-ordinated manner, mankind has lost control over the production and distribution of goods, so that periodic slumps, booms, and wars have, especially in the last thirty years, prevented the people from enjoying to the full extent the potentialities of modern scientific advance.

Nevertheless, the dependence of social life in general, and of the cultural prospects of the people, on the technical and industrial level is quite clear. In particular, the last twenty years have seen tremendous advances which open up quite new prospects, if the resources of the world can be effectively planned and exploited.

It is with these conditions clear in our minds, therefore, that we should consider the rôle of education, and especially of the universities, for the universities are key-points not only in the educational system but also in our social structure.

At every point they abut on to society, both in the research that is carried on within their walls and in the graduates they turn out who hold key-positions in industry and commerce, in administration and research, in health and education, and in the various professions. Occupying this vital place, it should be the function of the universities, in whatever ways are open to them, to help to make a reality of the social potentialities of the present time, and to discover how the development of science and technology can be devoted to the needs of man. And an essential part of this activity is to make their students understand the prospects which face modern society. They must fit students to understand how modern knowledge, in technology, health, education, and in science generally, can and should be used in the interests of the people to raise the standard of living and to provide the conditions for a real freedom. And further, they must educate students so that they understand their position in society, and know how to use their abilities and their training to further these ends in the various spheres to which they will go. Similar objectives should condition the type and the manner of research that is carried on in the universities. Thus, the culture of the modern era which should pervade the universities is a scientific culture, alive to the possibilities of the present time, responsive to its needs, and vital to acquire if we are to make use of those possibilities. It is in every way different from, even the opposite of, the old "classical" culture which has for so long dominated our educational thinking. This culture takes little or no account of the vital factors which condition the development of society at the present day and even takes a pride in its abstraction from such social realities.

With this in view, then, certain questions concerning the position of the universities in modern society are immediately relevant. To what extent, for instance, do we take a scientific view of the organization of university education in relation on the one hand to the educational needs of the people and on the other to the industrial, scientific, and administrative needs of society? What clear objectives have the universities with regard to the qualities of the graduates they turn out, both in their professional and in their civic capacities? Are the doctors, administrators, technicians, and scientists that the

universities produce well trained to appreciate the potentialities of their professions and their knowledge, and the social effects of their particular specialism? What principles determine the scope of the subjects taught at the universities, and the manner in which they are taught? Do university teachers appreciate the cultural value of their particular subject? Do they understand its history and the forces shaping its history, and do they appreciate its social effects? Finally, what scientific principles determine the methods of recruitment to the universities? Is it done on the basis of making the best use of the available talent in the community, or is some other method used?

These are some of the questions that are inevitably raised when we consider the universities from this point of view. It is vital to obtain the correct answers to these questions if the directions of advance are to be clearly understood and their necessity realized. The writer does not attempt to answer these questions in detail, for that is a work that would demand the co-operative effort of many minds with varied experience. He has, however, had an unusual opportunity for a period of two years of discussing these problems with students in universities all over the country, in particular with the officers of university unions and with the members of the National Union of Students. The book is an attempt to make a contribution to the debate on universities from the point of view of the student.

CHAPTER II

THE DEVELOPMENT OF THE MODERN UNIVERSITIES

UP to 1832, Oxford and Cambridge were the only universities in England and Wales (although the four universities of Scotland had already been in existence for many centuries). Founded as far back as the twelfth and thirteenth centuries, their main function was to provide a training for the clergy, and the students were drawn to Oxford and Cambridge in search of learning and a position in the Church. As the

years passed, the control of the Church over the universities was strengthened by the foundation of various colleges by eminent churchmen, and in time it was largely in the separate colleges that the students lived and worked.

The medieval university curriculum was based on the classics and later on the "liberal arts" of ancient Greece, and was entirely divorced from the pursuits and interests of ordinary people. Grammar, rhetoric, dialectic, arithmetic, geometry, astronomy, music were the seven liberal arts which were bent to theological ends, while religious doubt and heresy was rigidly stamped out. Owing to the control of the Church over the universities, the advancement of learning was constantly hindered by the suppression of discoveries likely to challenge the ascendancy of its dogma. Later under Protestant rule university studies were turned to the ends of a new creed, but the use of Latin and the old methods continued for many years, to the practical exclusion of English, experimental science, history, mathematics, and the study of the material world. The universities remained practically oblivious of new knowledge, and the philosophies of Greece and the Middle Ages were regarded only as a storehouse of syllogisms. Formal logic still held sway as a method of mental training, and wastes of barren reasoning made an impassable barrier between the universities and the living world outside.

There were, of course, those who revolted against this form of education. Francis Bacon, for instance, as a boy at college, professed his dislike of the Aristotelian philosophy turned to theological ends as a "philosophy only strong for disputations and contentions, but barren of works for the benefit of the life of man," while nearly a hundred years later Milton protested against the unreality of the education in an oration, "Against the Scholastic Philosophy," delivered while he himself was still at the university: "It not infrequently happens that those who have entirely devoted and dedicated themselves to this blight of disputation lamentably display their ignorance and absurd childishness when faced with a new situation outside their usual idiotic occupation. . . . The supreme result of all this earnest labour is to make you a more finished fool and cleverer contriver of deceits, and to endow

you with a more expert ignorance; and no wonder since all these problems at which you have been working in such torment and anxiety have no existence in reality at all, but like unreal ghosts and phantoms without substance obsess minds already disordered and empty of all true wisdom."

But while the universities were sinking further and further into the morass and, restricted to the examination of ancient philosophy for the purpose of strengthening religious dogma, were acting as a brake on progress and as strongholds of reaction, a new force was bringing into being a new educational philosophy.

In the Civil War Parliament won a victory against a despotic king supported by feudal landlords and the established Church, because it was backed by the rising industrial and trading classes, by yeomen farmers and the lesser gentry, and was able to draw into the struggle sections of the working population. A new popular enthusiasm for education was the fruit of the political events taking place. The New Model Army, democratic in outlook, became a great school and debating society where the soldiers satisfied their desire to learn.

Although Puritan thinking did not penetrate to the universities to any great extent, the new educational philosophy was given concrete form in the Dissenters' academies which grew up during the course of the century. Composed chiefly of the mercantile and labouring classes, the Dissenters were shut out from the schools and universities under the control of the established Church, and so forced to provide their own schools for the education of their followers. It was in the Dissenters' academies that the break with the classical tradition was made and that education ceased to be purely for the Church and for aristocratic accomplishments. History, modern languages, mathematics, and science appeared in the curricula, while some of the academies gave an education that reached university standard. Professor Clarke, in his book *Education and Social Change*, says of these academies: "We must relate them therefore, to the Royal Society, to the inventions of the eighteenth century, to the beginnings of the industrial revolution and to the modes of thought which gave rise to the revolutions in America and in France . . . a

Protestant tradition representing the educational outlook of an enterprising middle class that had broken completely with Rome and was as objectively zealous in business enterprise as it was firm in its adherence to Reformation principles."

The tradition of a classical and aristocratic education for the ruling class was, however, too strongly established for this innovation to make a deep impression on prevailing educational methods, and the ancient universities were not affected. They became the preserves of the aristocracy and the gentry, and from the seventeenth century until the end of the nineteenth century their thought lagged behind that of society as a whole, and their rôle tended to be reactionary. Oxford, for instance, acquired the nickname of the "home of lost causes and impossible beliefs" because it was the stronghold of Jacobites, Nonjurors, and other movements long after these had ceased to be of any significance in the outside world.

By the eighteenth century the universities had become more and more cut off from social movements, and the intellectual atmosphere became increasingly rarefied and metaphysical. The complacency and self-satisfaction which was characteristic of the English ruling-class outlook in the eighteenth century was reflected in the stagnation of university thought, while the vital new developments, in science and political economy particularly, took place largely outside the universities. The tradition of academic learning quite apart from the life of society and from social movements reached a climax during the eighteenth and early nineteenth centuries.

Little teaching or learning of any kind was done in the universities, and what there was consisted largely of the classics. Examinations were a farce, being taken seriously neither by students nor teachers, and distinctions were awarded under arbitrary rules if not as a matter of pure favouritism. At Cambridge an honours examination was held only in mathematics, and the proctors exercised the privilege of inserting names in the honours list at will, while Oxford granted its degrees on the report of three unpaid and unqualified examiners. The only real qualification for a degree was four years' residence.

Fellowship and scholarships were in most cases restricted to certain localities, schools, or families, and fellows were with few exceptions obliged to take orders in the Church of England, and were forbidden to marry. The constitutions of both universities vested power in the hands of the vice-chancellors and their nominees, and so excluded all possibility of reform. For various reasons Cambridge never sank to quite the level of Oxford, and in some ways showed herself more adaptable to the age. It is true also that a minority of the students made full use of their time and that many great men passed through the universities at this period. But in general it may be said that wealthy students resided there for the specified number of years more in order to learn how to spend their money than for any other reason.

The universities, therefore, made few contributions to the advancement of science and learning and were in no way concerned with the welfare of the community as a whole. Nevertheless, their rôle as seminaries for the ruling aristocracy was exceedingly important, for it was here that the manners and attitudes were acquired which were to condition the sons of the ruling class in after life. This rôle the universities have successfully maintained as their chief feature through all the vicissitudes of the last century, and up to the present day. At that time, to have been in residence at Oxford or Cambridge was a passport to the highest positions in the State. The same is equally true at the present time.

The inadequacy of Oxford and Cambridge to meet the new needs which arose as a result of the rapid social and industrial developments which were taking place during the early half of the nineteenth century is readily apparent. At a time when society was undergoing a tremendous transformation, when large industrial towns were growing up in many parts of the country, when the development of industry was creating new problems and new potentialities, and the rising class of factory owners was rapidly increasing in size and struggling for ascendancy over the aristocracy, Oxford and Cambridge, which provided the only facilities for a university education in the country, were sunk in idle inactivity and were to a considerable extent the privilege of that same aristocracy.

Out of touch with and unadapted to the new developments

of society it is no wonder that they were submitted to a merciless attack from the new and vigorous forces.

The attack, carried on partly through the pages of the *Edinburgh Review*, was based on the principles of utilitarianism. Armed with the weapon of a rationalist philosophy, Bentham and his friends examined the ancient universities and came to the conclusion that they were inadequately fulfilling their function in an industrialized community.

The students learned nothing which they considered "useful." The only careers for which any attempt at preparation was made were the Church and the Law. The universities were too expensive for the middle classes, whose children nevertheless needed an education on a university level to fit them for the various careers they were to follow. To cap it all, the ancient universities applied religious tests so that entrance for any who did not subscribe to the tenets of the Church of England was extremely difficult. Finally, the development of industry required the advancement of physical and natural science, subjects scarcely heard of at Oxford, while at Cambridge, although a certain amount of teaching of these subjects was done, what there was tended to be out-of-date and purely theoretical, while the amount of research was negligible.

The first challenge to the ancient universities came with the founding of University College, London, 1826. The poet Campbell, when touring Germany in 1825, had been impressed by the modernity and liberalism of the new university of Berlin and wrote a letter to *The Times* urging the establishment of a similar institution in London. The proposal was supported by various types of people interested in the advancement of learning, and Whig, Nonconformist, Radical, and Jewish notables were among those who supported the project and raised the necessary money. In this way "the proposal [for the foundation of a College in London], which fell upon deaf ears in 1728, was listened to a hundred years later, because, meanwhile, a social revolution had created a demand which, in the old seats of higher learning, could not be satisfied." ¹ University College was founded with fees within the reach of the middle class. No religious tests were applied, while

¹ *History of University College, London*, by Professor H. Hale Bellot.

science and the modern humanities were given an important place in the curriculum.¹

It was rapidly followed in 1828 by King's College, a Church of England establishment founded in opposition to University College and imposing religious tests. In 1836, after a period of controversy, the University of London was incorporated as an examining body, and in 1850 the university received a new Charter, and its scope was widened to include additional affiliated colleges.

Durham University received its Charter in 1832. Already in the seventeenth century Cromwell had granted his assent to the foundation of a college in Northern England, but after the Restoration the scheme was dropped. When Durham University came into being it followed closely in the footsteps of Oxford and Cambridge, and colleges were founded as a constituent part of the university. In 1853-54 the average number of students in residence was 120, but this number fell to 44, and it was not until towards the end of the century that they rose again to several hundred.

Although London and Durham universities were founded fairly early in the nineteenth century, the various colleges in the large industrial centres—such as Birmingham, Bristol, Manchester, and Liverpool—were not founded until the second half of the century and did not become universities proper

¹ The foundation of U.C.L. was accompanied by fierce attacks, particularly from Oxford and Cambridge, who saw in it a threat to the established order. This attack, designed to prevent parents from sending their sons to the college and to stop it getting a Charter to grant degrees, was satirized by Praed as follows:

Ye Dons and ye Doctors, ye Provosts and Proctors,
Who are paid to monopolize knowledge,
Come make opposition by voice and petition,
To the radical, infidel College;
Come put forth your powers in aid of the towers,
Which boast of their Bishops and Martyrs,
And arms all the terrors of privileged errors
Which live by the wax of their Charters,
Let Mackintosh battle with Canning and Vattel,
Let Brougham be a friend to the niggers,
Burdett cure the nation's misrepresentations,
And Hume cut a figure in figures;
But let them not babble of Greek to the rabble
Nor teach the mechanics their letters;
The labouring classes were born to be asses,
And not to be aping their betters.

until the twentieth century. The initiative in this case came directly from the factory-owning class itself.

The reasons for this are not far to seek. The manufacturing class was most directly interested in the development and the application of science, for new and improved industrial processes meant for them success against competitors and increased profits. The improvements, for instance, in the steam engine which resulted from Watt's researches were of immediate use to the manufacturers of the industrial districts, and it was these men and their associates who first realized the potentialities latent in the pursuit of scientific research. Science received its most direct encouragement, therefore, in the new industrial towns of England and Scotland. Dalton, for instance, was making his discoveries in Manchester at the beginning of the nineteenth century, while Birmingham was the meeting-place of the famous Lunar Society, attended by many of the most distinguished scientists of the country.

It was in these new industrial centres that the new universities also came to be situated. In the words of M. Halévy, it is "in non-conformist England, the England excluded from the national Universities, in industrial England with its new centres of population and civilization, that we must seek the institutions which gave birth to the utilitarian and scientific culture of the new era."

The early years of the nineteenth century, in fact, saw a veritable intellectual renaissance among an influential section of the middle class of these cities. Their interests were by no means confined to science and its practical application. Often brought together by the many Literary and Philosophical Societies which flourished at that time, these men had a great influence over many sides of the early development of their cities, and they were often inspired by the ideal of creating a vital civic and intellectual life, an ideal which they attempted to further by the foundation of various cultural institutions.

Among other ventures, they were largely responsible for creating many of the educational institutions of the time, such as the academies and mechanics institutes where lectures were given on scientific and other subjects, and training of a technical and scientific character provided for young men entering industry. These institutions prepared the ground for the

universities proper, while the civic ideals fostered by their founders, and persisting throughout the century, found expression in the foundation of the modern universities in the second half of the nineteenth century.

The development of institutions for higher education was paralleled by the provision of a number of elementary schools, which marked the first beginnings of a universal system of education. Already between 1810 and 1820 the first elementary schools were set up by Church agencies to provide for the new proletariat in the industrial towns. It was not, however, until the early twentieth century that the organization of secondary education provided a means of linking these schools to the universities.

The other form of educational establishments, apart from certain theological institutions founded at this time, were the various medical schools set up in almost all the large provincial cities in the eighteen-twenties and eighteen-thirties, which were later to be incorporated into the various universities.

The new university colleges did not, therefore, burst upon a scene which had previously known no educational activity. The idea of providing education on a university level was already in the minds of many people, and notably at Manchester and Bristol schemes for the establishment of universities were being discussed before 1850.

It was in 1851 that Owens College, Manchester, financed by a legacy left by John Owen, a wealthy cotton merchant, opened its doors for the first time, and inaugurated what might be called the second era of the modern university movement. The college was founded to provide or aid "the means of instructing and improving young persons of the male sex (and being of an age not less than fourteen years), in such branches of learning and science as are now, and may be hereafter, usually taught in the English universities, but subject nevertheless to the fundamental and immutable rule" that no religious test whatever be applied. It was to be open to all without respect of place of birth and without distinction of rank or condition in society.

After Manchester there followed in the sixties the early beginnings of Southampton and Exeter, and one by one, in

rapid succession, the colleges that were to develop into universities and university colleges sprang into being; in the seventies Leeds, Bristol, Sheffield, and Newcastle (in connection with Durham), in the eighties Birmingham, Liverpool, Nottingham, in the nineties Reading. During this period many colleges were also founded which became part of London University.

In Wales, where it had long been proposed to raise funds for a university college, Aberystwyth opened in 1872. In 1881 the Committee on Intermediate Education reported in favour of a Parliamentary grant for one university college in South Wales and another in North Wales, and in 1883 Cardiff was opened, followed in 1884 by Bangor. The three colleges were incorporated by Royal Charter in the University of Wales in 1893, and the youngest of all the university colleges, Swansea, was founded in 1920.

Concomitant with these developments came the provision of higher education for women. Bedford College was the pioneer of this movement, to be followed by colleges at Oxford and Cambridge. It was not long before women were admitted to the new universities and colleges and able to take their degrees.

The foundation of these institutions, which were to develop into the universities and university colleges as we know them to-day, must be seen as part of the whole setting of the time, a time of immense growth and activity during which Britain was becoming the foremost economic power in the world.

The development of industrialization gradually brought with it a new stratification of society, and a raising of the standard of living, even if the rise was most apparent among the middle class, which was achieving political and economic power. It brought with it new problems, problems of science and industry and trade, of local and national government, of health and of education. Above all, the increasing complexity of society, combined with the rapid increase of knowledge, brought with it that division of labour, or specialization of function among the technicians, administrators, teachers, and civil servants; which is the hall-mark of modern society. This rendered necessary the provision of a specialized training for the new professions and careers which were opening out.

It was to meet this need that the modern universities were founded.

From the first these colleges maintained a close connection with the localities in which they were situated and provided for the needs of local industry. It is impossible here to go at all deeply into the extent and nature of this relationship, but one or two examples show clearly its type, and throw light on the motives behind the foundation of these institutions.

In 1880 Mason College, later to become the University of Birmingham, was founded by Sir Josiah Mason, a wealthy Birmingham manufacturer who had raised himself from the working class to be the owner of great industrial establishments. In a deed of trust executed in 1870 he speaks of his being convinced by experience "of the necessity of thorough systematic education and instruction specially adapted to the practical, mechanical, and artistic requirements of the manufactures and industrial pursuits of the Midland district and particularly of the Boroughs of Birmingham and Kidderminster and to the exclusion of mere literary education and instruction and of all teaching of theology or of subjects purely theological." Sir Josiah Mason does not mince his words, and his contempt for the arts side of the university appears surprising to-day. In fact it was not until the need for teachers in the secondary schools began to grow, towards the end of the century, that the arts faculties began to come into their own in the modern universities.

Another example is that of Armstrong College at Newcastle, which was founded in 1871 "by the joint efforts of the University of Durham and the North of England Institute of Mining and Mechanical Engineers" and which was "originally intended for the faculty of science of the University," its first title being the "University of Durham College of Physical Science." The calendar of the university says that "Armstrong College was the first university college in England to establish a department of mining, and from the beginning it has been in closest touch with this industry. The output of coal in the northern counties is carried out very largely under the direction of former students of this College."

Finally, the original purpose of Leeds University, started in 1870 as "the Yorkshire College of Science," was to supply

“instruction applicable to the manufactures, engineering, mining, and agriculture of Yorkshire, and such arts and languages as are cognate to the purpose.”

These are just particular examples of what was, in fact, a general rule. The university colleges were established to meet local needs which had arisen owing to the industrial and social development of the time. They were largely supported by local benefactors, and even to this day derive a considerable proportion of their income from such sources. From the beginning they have concentrated on scientific, technical, and “modern” subjects, and have been closely associated with local industry.

It is certainly true that the foundation of these colleges was, in some places, assisted by men with high social ideals who were inspired in their efforts by the conception of provincial colleges or universities which would become centres of culture for the cities and localities in which they were situated, but the course of events has prevented the full realization of these aims, although their influence in the modern university movement is certainly important.

The history of the first few years of Owens College, Manchester, brings out very clearly the main forces moulding the development of the modern universities. For Owens College stands out as an institution which was not founded for any immediate utilitarian purpose. Situated in the centre of a great industrial district, and supported largely by men drawn from the manufacturing and merchant classes, the chief conscious motive for its foundation yet appears to have been a desire to increase the opportunities of obtaining education “for its own sake” or an education for “life.” The first Principal in his various speeches shunned the “useful” aspect of education and laid the chief stress on the power of education to develop the faculties of the mind.

Owens College was founded considerably before the other institutions and the history of the first ten years of its existence show that the college was, in a sense, before its time. They were years of disappointment, almost of failure. The number of day students dropped from 62 in 1851 to 33 in 1856, rising to 88 in 1861. It was not until the education given became more definitely linked to the various careers and professions,

more adapted to the new needs, that the college really began to flourish. It is worthy of note that when Owens College was attempting to get a grant from the Government, in 1869, its claim was based largely on the necessity of provision for scientific and technical instruction on a university level in a great manufacturing district.

The first formal step which marked the increased stability of the new institutions was the foundation of the Royal Victorian University in 1880, which comprised the colleges of Manchester, Liverpool, and Leeds. For the causes of the later development of most of the university colleges into universities proper we must look to the changes that were taking place in economic and social organization.

Towards the end of the nineteenth century important changes were taking place in the inner workings of the economic system which have affected profoundly the whole history of social relations and institutions since that time. This factor was the growth of international trade. Capital, which had previously made good profits when invested in this country, could no longer find such profitable fields of investment at home, owing to the satiation of the home market. By the export of goods and capital to foreign countries new and profitable markets and fields of investment were found. The colonies, which had previously been described by Disraeli as "millstones round our necks," rapidly became our most valued possessions.

The export of capital from this country had already reached considerable proportions before the turn of the century, and its influence had been felt in all quarters of the globe. A new era was opening up, one that was to bring not only a certain measure of prosperity in its train, but also the menace of international rivalry on a huge scale.

Although Britain was the first country in the world to develop large-scale industrial enterprise she was not to be long without rivals. By the end of the century Germany, France, and America were growing in industrial might and challenging Britain in many parts of the world. The rapid development of Germany constituted the greatest menace, since by a close integration of science and industry, and by energetic and systematic organization, Germany had built up

her industry on a scale which made her a formidable rival of Britain in the world's markets.

At the opening of the nineteenth century, after the defeat at Jena, and the Treaty of Tilsit in 1807, Germany had been forced to take active steps to raise the morale and revive the energies of her people. In a series of addresses to the German nation the philosopher Fichte put education in the front rank as a means of regeneration: "If Germany is to be saved the nation must be taken as the unit of social organization. Germany must realize its character and destiny, and through a conscious control of education it must liberate all its potentialities—moral, intellectual, physical, vocational—for national service."

Germany developed a system of national education and at the same time developed both teaching and research at the universities. Berlin, Göttingen, Leipzig, Bonn and other German universities took on a new lease of life, and under the spur of intense nationalism established a new tradition in all branches of learning and not least in science. While academicians in other countries were still sunk in inertia, the German universities took a flying start, and were soon leading the world in science, philosophy, and humanistic studies.

An answer to this challenge had to be found. One that would put British industry in a stronger position in order to compete with its rivals. Hence the development of secondary education at the close of the nineteenth and beginning of the twentieth centuries. Hence also the growth and development of the university colleges and their transformation into universities proper. Lord Haldane, for instance, writes in his autobiography: "By this time [1902] I had come to see that what we needed badly in our own country was more universities and universities of the civic type, in different parts of these islands. Turning to these matters, one of the first of the new university movements on which I set to work was that in Liverpool. . . . I addressed the men of business of the city in a speech . . . warning them of their peril from German rivalry if they continued to neglect science and education. Liverpool made a splendid response. I also worked hard at London and at Bristol, where the university was ultimately founded of which I am now Chancellor."

Again, speaking of the campaign in favour of free trade at the beginning of the century, when Joseph Chamberlain was pressing for Imperial Preference, Haldane writes: "Asquith and I made speeches not only in Parliament but all over England. Our cardinal point was that what was threatening our industrial position was want of science among our manufacturers. We pointed to case after case, particularly in the industries which required chemistry, where business was being lost to this country by the deficiency of our people in the use of science. . . . Our real danger was not one of German invasion, but one of German permeation of our markets by the employment of scientific knowledge. This was one of the features in the case for the increase we were struggling for in the number of the teaching universities of Great Britain."

There can be no doubt that the considerations put forward by Lord Haldane had an immense influence on the development of the modern universities. But if this was the basic reason for their growth it was not the only one. The defence and exploitation of the Empire required efficient colonial administration and a potential officer class as well as scientists and business men. The increasing complexity of society required more administrators, lawyers, doctors, teachers, parsons, and minor civil servants, and it was partly the universities which were developed to meet these needs. New faculties were started, the standard of teaching was raised. The number of students increased, finance was forthcoming from various sources on a more generous scale, and in general these institutions acquired a greater degree of stability and social standing as they became more and more necessary to the working of modern industrialist society.¹

The rôle played by civic consciousness in the establishment

¹ In 1897 the President of Magdalen College, Oxford, and Professor Liveing of Cambridge made a careful inspection of the university colleges before recommendations for a grant for them as national institutions were put before Parliament. They reported that "the colleges are, to speak generally, doing good work, fulfilling their function and realizing the function for which they were established, namely, of bringing education of an advanced and university kind to those who cannot go to the universities to seek it, of forming a link between the universities and the great commercial communities of the country, and of establishing in the minds of these communities centres of intellectual enlightenment and culture."

of the modern universities should not, however, be underrated. The conception that a university education is good for its own sake, that the universities would have a great deal to contribute to the life of the cities, played an important part. In each of these cities were to be found men for whom the ideal of a civic university was an inspiration. Similarly those who came to teach in these institutions had a considerable influence. Frequently men who had received their education at Oxford and Cambridge, they preferred the excitement of taking part in the development of the new universities to the safer life at the ancient seats of learning. They brought with them a tradition that was to play an important rôle in the growth of these universities, and which was an immediate if not always a salutary influence in the formative years of development.

It was in 1900 that the University of Birmingham first received its Charter, and became an independent institution, a movement with which Joseph Chamberlain, the great imperialist, was closely associated. In 1903 Liverpool broke away from the Federal University and became autonomous, while Manchester and Leeds followed in the same year. Most of the other modern universities received their charters in the next few years.

The period 1900-32 was one of continual if slow growth, broken, of course, by the last war. The number of full-time students rose from 20,000 to a peak of 50,700 in 1932, since when a decline has set in. The amount of money spent on the system also increased, while it was during this period that the present system of grants and scholarships for students was built up.

To-day the modern universities are an indispensable part of the industrial and social structure of the country. Sir Hector Hetherington, Principal of Glasgow University and formerly of Liverpool, put their position clearly when he wrote: "The modern universities have every right to believe they are fulfilling the purpose for which they were built. They have become indispensable agencies in the supply of that first-rate professional service on which the welfare of the nation and Empire depends. By no possibility in war or in peace, at home or abroad, in commerce or in industry, in

education, medicine, law, religion, or government, could our national needs be met without the work of the modern universities."

In the meantime Oxford and Cambridge had not been standing still. The social and economic changes of the nineteenth century were to leave their mark on these universities as well as on all other institutions in society. In 1850 two commissions were appointed to inquire into the state, discipline, studies, and revenues of the two universities, and in spite of sturdy opposition from the university authorities reports were prepared and published two years later, and long overdue reforms were gradually introduced. It was not, however, until 1871 that the Universities Tests Act was passed abolishing all oaths and affirmations at Oxford, Cambridge, and Durham except in divinity.

Briefly stated the history of these universities in the nineteenth century was one of increased organization and adaptation. Various examinations were started and teaching began to be carried out on a greatly increased scale. The numbers of students rose as the years went by and these universities began to take on the shape that they have to-day.

Bit by bit their exclusiveness was broken down under the blows of the rising industrial class, who sent their children there to mingle with the aristocracy and to imbibe the knowledge and the manners necessary for the ruling class. Study was no longer frowned upon, since in the complicated structure of the modern state, and for the manifold duties that fell to the colonial administrator, the M.P., the judge, or the business executive, intelligence was at a premium. Similarly those who may be described as the dependants of the ruling class, the professional men, the lawyers, doctors, administrators, and civil servants, who went to Oxford and Cambridge, needed to be trained for their careers, and if that training often remained more social than intellectual, learning certainly played a much larger part than was the case formerly.

But if the middle class succeeded in breaking down the aristocratic exclusiveness of Oxford and Cambridge, with their customary thoroughness they also rendered these institutions all the more exclusive. As a result of a recommendation of the

1850 commission the connection of these universities with the local grammar schools was broken by the expropriation of the endowments for closed scholarships attached to particular schools which were the chief means by which the poorer classes could rise to Oxford and Cambridge. On the plea that the method of closed scholarships did not work to recruit those with the greatest ability to the universities, the money was used to endow open scholarships. While on the face of it this would seem a fairer method, yet owing to the type of knowledge that the new examinations demanded, boys from the grammar schools with lesser facilities than the public schools were at a great disadvantage, and it was the latter who won most of the scholarships.

In the second half of the century, therefore, Oxford and Cambridge were almost entirely closed to poor scholars and became the incontestable privilege of the ruling class. It was not until the turn of the century, with the growth of secondary education, that a small trickle of the lower middle class was allowed once more to climb to Oxford and Cambridge, with the assistance of various scholarships and grants used for this purpose. As late as 1937-38 the percentage of students at Oxford and Cambridge who started their education in the public elementary schools was at the most 24 per cent., and probably less.

Oxford and Cambridge have, therefore, largely retained their privileged position as seminaries for the upper classes. The development of science, especially at Cambridge, and of the various faculties which prepare students for certain careers are the outward signs of the changes of form rendered necessary by the development of society.

From this brief review the pattern of the university system of this country can clearly be seen. On the one hand there are Oxford and Cambridge with, before the war, some 10,800 students. These universities are richly endowed and provided with all the necessary facilities for teaching and learning. With their ancient buildings and traditions, their green lawns and spacious grounds, with their Dons and Masters, their libraries, their playing-fields, and the privileges they offer, these universities are the national universities of this country, but national only, with a few exceptions, for one class. They

are in a dominating position, and their influence is spread through every sphere of society.

On the other hand, there are the modern universities of England and Wales with, in 1937-38, 28,570 students, 12,726 of them concentrated at London University. These exist largely in the big industrial cities of the country, and their buildings and facilities in no way compare with Oxford and Cambridge. Largely non-residential in character, their students come mainly from the immediate locality. Their social rôle may be described as auxiliary, although very necessary. Their students have not the standing of those from Oxford and Cambridge, and are not equipped for the leading positions in society. For them a much less generous scale of finance is necessary, and their facilities and staffing are greatly inferior to those of Oxford and Cambridge.

This very brief historical survey shows that the motive force behind the development of the universities during the last hundred years has been the growth of the manufacturing and commercial class and the vast social and economic changes which have brought this class to power. The close relation between the organization and inspiration of the universities and the structure and development of society is at once apparent.

CHAPTER III

SELECTING THE STUDENT

THE nature of university education has been determined by the development of society as a whole. The education given in the universities shapes the student in accordance with the values of the society in which he is to live and work. The student body is, therefore, the raw material with which the university has to deal, and the existing opportunity for obtaining a university education and the factors influencing various classes of students towards the achievement of a higher education play an important part in shaping the universities as they are to-day.

The composition of the student body is controlled by the

methods of recruitment to the universities through the state and public schools. A brief survey of the structure and development of the educational system will serve to show both the status of the different schools and the extent of the opportunity for children of different classes of the population to enter a university.

The prevalent conception of education in this country has been that of a training for the upper classes of society in aristocratic accomplishments and in the art of ruling, rather than the principle of making education available to the mass of the people in order to raise the standard of life through knowledge and culture and so to make possible a true democracy. Universal primary education, as it exists to-day, is only some seventy years old, and the establishment of a state system of secondary education dates from the beginning of this century.

Formerly learning was confined within the walls of the ancient universities of Oxford and Cambridge, although secondary education of a kind was provided for a selected few of the children of the middle class in endowed grammar schools. Many of these schools were founded in the sixteenth century by private individuals, religious bodies, and city companies to add to the small number of ancient institutions such as Eton and Winchester, founded in the Middle Ages as training grounds for the universities. Although they provided for the "education of the poor" these schools did not profess to give elementary instruction, and as late as the eighteenth century the only provision for such education was the "Dame Schools" and other small private establishments, often directed by quite incompetent authorities. There were also a number of charity schools established under the auspices of the Society for the Promotion of Christian Knowledge and other Church bodies. According to contemporary estimates some 150,000 children attended the charity schools, roughly 53,000 attended dame schools, and, in addition, 21,600 out of the 194,914 Poor Law children between the ages of five and fourteen attended schools of industry, founded in certain districts to provide the children of paupers with the rudiments of education.

With the opening of the nineteenth century the social

changes which made necessary the extension of university education also made necessary some provision for the elementary education of the mass of the people. The new machine age brought a demand for more and more adult and child labour in the factories. The population was growing rapidly and new industrial towns were drawing in thousands of workers from the surrounding country. Vast and far-reaching social problems were arising, not least of which was the problem of educating the new working class, who, already subjected to long hours, low wages, and appalling conditions in the factories, could no longer safely be left untrained and ignorant.

Whereas formerly it had been considered dangerous to educate the lower classes it was now considered dangerous to leave them uneducated. A conception which held sway long after the abolition of serfdom is embodied in a statute of Richard II: "no bondsman or bondswoman shall place their children at school as has been done, so as to advance their children in the world by their going into the Church," and the new attitude, enforced by circumstances, is illustrated by a quotation from a manual of the British and Foreign Schools Society published in 1816: "We have a deep interest in the state of their morals; for as in every country they are numerous it involves our personal security; we are obliged on unnumerable occasions to entrust them with our property. . . ." A basis for elementary education of the children of the poor had already been laid in the early seventeenth century when the 1601 Poor Law gave powers to local justices and mayors to bind the children of the impotent poor as apprentices, in order that they could be trained while young and so become more handy workers. Such were the roots of primary education. But the efforts of religious bodies and individual social workers for long provided the main impetus in the foundation of primary schools.

Sunday schools, of which the first was founded in 1780 at Gloucester by Robert Raikes, proved to be the most acceptable form of providing education in the industrial age, since they had the advantage of not interfering with working days, of controlling the working-class child in his free time, and of teaching him the virtue of resignation and obedience. Gradu-

ally, however, religious bodies made more comprehensive efforts to establish elementary schools.

In 1798 Joseph Lancaster, a Quaker, opened his first school, in which he applied new educational principles and was able to secure money and support in order to extend its activities. His work led to the founding of the Royal Lancastrian Institution in 1807. The established Church soon retaliated by founding, in 1811, under the patronage of the whole Episcopate, the "National Society for promoting the Education of the Poor in the Principles of the Established Church." In the meantime the Royal Lancastrian Institution was reorganized, under the title of the British and Foreign Schools Society, representing both the Quakers and those nonconformist bodies excluded by religious tests from the universities. The efforts of this society in promoting popular education and the teaching of "general Christian principles" were backed by such men as Bentham and other rationalists, and M. Halévy describes the society as "a perfect expression of the mentality of the young middle class—half Protestant, half industrial, passionately philanthropic."

A network of elementary schools gradually spread throughout the country as a result of such efforts, and were maintained by voluntary subscriptions and school fees. But the problem of providing education for the rapidly increasing industrial proletariat was becoming too vast for voluntary agencies to cope with. In 1816 a Government commission was set up to inquire into the "Education of the lower orders of the Metropolis," and certain outstanding deficiencies of the existing schools were remedied, but when the first official statistics appeared in 1819 it was found that on an average only one-fifteenth of the child population of England and Wales were attending school. It was not, however, until 1833 that the first state aid came in the form of a grant for buildings "in aid of private subscriptions for the erection of school houses for the poorer classes."

With the rapid spread of industrialization came a demand not only for adept fingers but also for scientific brains. Just as elementary education had become a necessity to provide for the new industrial proletariat, so higher education became necessary for the swelling ranks of the industrial middle class.

This period saw the foundation of the modern universities and provision was also made for technical education. A higher level of industrial efficiency was by this time a matter of national concern. The Great Exhibition of 1851 had shown up many of the deficiencies of British workmanship as compared with that of other countries. As a result the Science and Art Department was founded in 1856. Originally attached to the Board of Trade, it subsidized the teaching of science in the interests of industry and encouraged the spread of scientific and technical knowledge.

In 1877 the Livery Companies of London formed a committee to prepare a scheme for a national system of technical education. The Imperial College of Science and Technology was opened in 1884 as a central technical college and the institute conducted examinations in technology and granted certificates. In 1899 the Board of Education, which had absorbed the former Education Department, absorbed also the Science and Art Department, and technical education became the direct concern of the state system. Technical school buildings were provided by local authorities and the Act of 1902 also made them responsible for evening continuation schools previously organized by voluntary agencies.

Meanwhile the Newcastle Report of 1861 had had as its terms of reference "to consider what measures are required for the extension of sound and cheap elementary instruction to all classes of the people." It led directly to the Act of 1870, which established a state system. Local school boards were set up to provide the first state elementary schools, known as "Board Schools," and these developed side by side with the voluntary schools of the churches. Various acts passed between 1876 and 1893 made attendance at school compulsory for all children up to the age of eleven. This was the beginning of universal education. By the Education Act of 1902 the functions of school boards were transferred to county councils, county borough councils, and certain borough councils and urban district councils, which thus became local education authorities.

The Education Act of 1902, besides consolidating all previous acts and specifically providing for the control and extension of technical and further education by the state, also provided

for the establishment of a state system of secondary education. A society which demanded an army of industrial workers and a body of scientific knowledge, by reason of its increasingly complex organization also demanded a new body with administrative and clerical qualifications. The findings of the Royal Commission on Secondary Education published in 1893 led to the establishment of a central control, and the Act of 1902 gave local education authorities powers to aid and extend secondary education. Before this time the gulf between elementary schools and existing secondary schools had been impassable. Now local education authorities began to assist endowed schools, many of which were in financial difficulties, and to provide new schools, and later a special place system was evolved whereby fees were graded according to parents' means. These schools are governed by a code of regulations concerning their administration which is on a far more generous scale than that applying to elementary schools.

The big public schools are the important exception to a unified system of secondary education. Just as Oxford and Cambridge stand apart from the modern universities, so the public schools stand apart from the state secondary schools.

The most famous of the public schools have developed from the original grammar schools and have won their present position through various circumstances, mainly through individual enterprise, a fortunate geographical situation, or wealth. Founded originally to give an education to the poor scholar, these schools have gradually become the preserves of the wealthy. The "public school tradition" is not, however, as it is often loosely assumed, mainly one of venerable age. Its essential characteristics date only from the nineteenth century. The famous Thomas Arnold was the first to build up a form of education adapted to the needs of the modern gentry and the rising middle class. The development of railways made attendance at a boarding school possible for many more middle-class children in the latter half of the century, and new public schools, less expensive and less exclusive than the ancient foundations, appeared in different parts of the country: Wellington, Marlborough, and Clifton are examples.

The Spens Report, referring to the Report of the Public

Schools Commission (1864-68), comments on the prevailing conception of education: "The constructive recommendations of the Commissioners in respect of curriculum show clearly the influence of that class idea of education which held the field in England till the end of the nineteenth century. Education was envisaged in terms of social classes; there was to be one education for the less affluent class, another for the middle classes of society, and a third for the upper classes. There was no machinery for passing from one grade to another, though a boy of exceptional ability might succeed in doing so. The type of education which a boy received depended on the wealth and social position of his parents, the career marked out for him, and the age at which he would like to embark on it. For girls there was nothing but home education or private schools. The Commissioners emphasized the importance of organizing a system of secondary schools within the reach of every class of society."

The system of secondary schools has been organized, and state scholarships and the special place system have made it possible for children from the elementary schools to reach the university. But it is difficult to understand how the consultative committee came to the conclusion that the class idea of education ended with the nineteenth century. To-day the children of the upper classes go to Eton or Winchester, and on to Oxford or Cambridge, the children of the professional and middle class go to one of the minor public schools and the modern university, the children of the working class go to elementary school, and leave at fourteen to go into industry, unless they combine exceptional ability with good luck and sound health, and so manage to reach a secondary school and ultimately a university. Broadly speaking, this is the pattern of English education.

Yet in face of these facts it is held that education is no longer envisaged in terms of social classes, that there is to-day opportunity for children of ability to reach the university, and that a few further reforms in the present educational system will serve to make opportunity equal to all children.

It is true that the number of secondary school places was approximately doubled between 1895 and 1910, and increased almost three times between 1910 and the present day. In

addition reforms in the elementary schools, in particular the recent development of senior schools, have made the schooling provided more enlightened within the conception of a practical education for the future factory worker or farm labourer. The development of the school medical service during this century has also done much to improve the general health of the school child, and so to better his chances of profiting by his education and of climbing the educational ladder. It is on these and similar facts that the assumption that equality of opportunity can be achieved within the present system is based.

But these improvements, although marked, are only relative. They cannot be judged independently of the whole picture. It might also be said that it was necessary to raise the level of health in the child life of the nation, and that physical training and practical work now done in the senior schools is the modern equivalent of the three R's of the original Board Schools. It is the firm opinion of most enlightened educationists that the system of post-primary education cannot be effectively organized, let alone organized to provide equal opportunity for all children within the state system, until the school-leaving age is raised. Similarly the continued influence of the Church on the national system of education has inevitably had a retarding effect on reorganization.

There remains the very existence of the exclusive and expensive public schools to illustrate that the conception of one education for the rich and another for the poor is still prevalent. The incontrovertible fact is, that while 1 in 8 of the children from public schools automatically go on to a university education, only 1 in 150 of the children in elementary schools ever reach a university. And the deciding factors in the case are social factors. This has been proved time and again by the results of recent sociological research.

The operation of economic pressure can be seen within the state secondary system itself. In 1938 the ratio of admission of public elementary school children to secondary school was 14·3 per cent., and the percentage leaving secondary school for universities and university training departments was 5·2. That this discrimination is not on the grounds of ability has been shown conclusively by the researches of Professor Gray and Pearl Moshinsky. In the first place, as regards the entry

to secondary schools they found that just over one-third of the able pupils in elementary schools receive free places in secondary schools; while comparing children of equal ability, "seven fee-paying pupils will receive a higher education for every one free pupil." In addition, "on their observed performance alone the comparatively poor very greatly predominate in the production of achievements of high ability . . . on the highest criterion of ability 45 per cent. and on the lowest 57 per cent. of the total number of gifted children in the school population do not enjoy the opportunity of a higher education." Further, if it is claimed that the educational ladder is already too congested "the reason is that there are insufficient places for elementary children with high ability, and that many of the available places are occupied by inferior children whose parents can purchase for them the privilege of higher education irrespective of comparative merit."¹

The professions are predominantly recruited from that small section of the population educated at expensive public schools and at the university, so also is the civil service and, even more exclusively, the diplomatic service. It is the same with all important positions in the state. Meanwhile the elementary schools cater for the vast majority of the country's children—88 per cent. in 1938. If we continue to use the figures for this year we find that 79 per cent. of these children left school at the age of 14 to take up employment. And not only are the vast majority of children forced to leave school at this age, but they are also forced in large numbers into unremunerative employment with no chance of training, or into blind-alley jobs.

These facts tend to be obscured in war-time, but in the last peace year the largest number of juveniles were employed in the distributive trades, which are notoriously blind-alley jobs, a large number in the new mass-production industries, where they would be employed on repetition work, and a high proportion in tailoring and garment-making, which is the most highly rationalized industry. And this was not the end of the evil; the figures of juvenile unemployment were also rising, owing to the prevalent practice of employing boys and girls

¹ *Political Arithmetic*. Allen & Unwin, 1938.

at low wages and dismissing them when they qualified for an adult wage.

This is the other side of the picture. This is the future to which the vast majority of children in this country have been condemned, and in the face of these facts it is hypocrisy to speak of equality of opportunity. A small number of elementary-school children, if they are successful in the "special place" examination usually taken at the early age of 11, do, it is true, find their way to secondary schools. But there were only 470,003 children, including fee-payers, in such schools in 1938, and of these only 226,385 were between the ages of 14 and 19, as compared with over 2,000,000 between the ages of 14 and 18 employed in industry. Thus only a very small proportion of this age group were enabled to undergo the continued schooling necessary to prepare for the university.

Further, the average age of leaving school was 16 years and 7 months, which shows that the secondary-school pupil, although he has made a step up the educational ladder, has by no means ensured a university education. Of the 13 to 14 age group who enter secondary schools just under half leave before the age of 16 and more than three-quarters before the age of 17, when the pupil is approaching university age. A table of the numbers in the different age groups attending secondary schools in 1938 makes this clear:

13-14: 84,978.	14-15: 81,053.	15-16: 71,290.
16-17: 44,686.	17-18: 19,001.	

The majority of secondary-school pupils who left school in 1938 (58.7 per cent.) left to go to various kinds of employment, such as clerical occupations, employment in banking, insurance, or commercial concerns, into the services, the police, or nursing. This percentage should be compared with that of 5.2, the proportion of pupils who left to go to universities or university training departments.

This then is the process whereby elementary-school children are "selected" for entrance to the universities. This is what is commonly known as the "broad highway" from elementary school to higher education.

Unfortunately it is impossible to pursue this analysis further

by a scientific examination of the social composition of the student body at the universities, since the figures concerning the parental status of university students are not made available. In the absence of these figures it is only possible to make a rough-and-ready measure of the composition of the student body on the basis of the number of university students who started their education in public elementary schools and the number who first attended private schools.

The total number of full-time university students in England, Wales, and Scotland was 49,189 in 1937-38. If we leave out of account foreign students, who formed about 10 per cent. of the total university population, we find that 8966 new students entered the modern universities (excluding the Institute of Education, London) during this year, and of these 4732, or 52·8 per cent., had begun their education in elementary schools. During the same year 1447 students entered Oxford University, of whom only 24·2 per cent. had begun their education in elementary schools. If we regard this as average intake of students, and take the figures for Cambridge as approximating to those of Oxford, the conclusion must inevitably be that the majority of students who go to Oxford and Cambridge come from select and expensive schools with a school population numbered in thousands, while the minority come from state schools whose population is numbered in millions; just over half of the students in the modern universities originally went to elementary schools.

In considering the extent to which university education is made available in this country to the mass of the people, it is instructive to compare the proportions between the number of inhabitants per university student in a number of countries.

The following figures show the position as it was in 1934:

Italy . . .	808	England . . .	1013
Germany . . .	604	Scotland . . .	473
Holland . . .	579	Wales . . .	941
Sweden . . .	543	Great Britain . . .	885
France . . .	480		
Switzerland . . .	387		
U.S.A. . . .	125		

This table shows how Great Britain as a whole was, before

the war, lagging far behind other countries in the provision of facilities for university education. It also shows the greater facilities that exist in Wales, and especially in Scotland, than in England.

Finally, attention should be drawn to the decline in the total number of students in Great Britain which set in after the peak year of 1933-34. The total number of full-time students in Great Britain rose steadily from 41,794 in 1924-25 to 50,737 in 1933-34, after which it fell to 49,189 in 1937-38. The drop of just over 1500 may not seem excessive in itself, but the position is seen clearly if the figures for the annual entrants to the universities are considered rather than the total numbers. In the five years from 1932-33 to 1937-38 the total annual entrants dropped from 15,050 to 14,063, a drop of about 1000. It is evident, therefore, that for some years before the war the scope of university education was being restricted rather than expanded.

The "broad highway" of the British education system is, therefore, revealed as a steep and narrow ladder. The "unique" scholarship system, far from providing opportunities for the mass of poor children of ability, operates mainly to recruit from among these children a small proportion of selected individuals to be trained for clerical occupations and the various professions, and if luck favours them to proceed to a university to complete that training.

The educational system in this country is essentially a class system. At the apex of the system stand Oxford and Cambridge, and these universities have a considerable influence on the system of secondary education, for they are examining bodies, and therefore prescribe the curriculum on which the School Certificate and the Higher Certificate, the entrance tickets to many business and other professions, are awarded. In the same way all the universities exert influence by means of their scholarship awards, which condition the whole secondary-school course. The universities, therefore, have been largely responsible for the shaping of secondary education and of the educational system, as a whole.

Success in climbing the educational ladder and so achieving a university education is the first indispensable step in preparing for a career and attaining a certain position in society.

It is in accordance with the morality of a capitalist society that this success can be bought with money without reference to comparative merit and ability, while real ability must be wasted for lack of means to continue education. So long as this system obtains the student body cannot be representative of the ability of the community, and the value of the universities as institutions must inevitably be restricted.

CHAPTER IV

GRADUATE EMPLOYMENT

ENTRANCE to a university does not necessarily imply freedom of choice of all the careers open to graduates. Just as the education available to the child depends largely on the class and wealth of his family, so economic circumstances also play a considerable part in determining the type of career the student will follow at the university. For instance, some courses at the universities are more expensive than others and can be afforded only by those in fairly good economic circumstances. Medicine is one of the outstanding examples, for a doctor's training takes at least five years at a minimum cost of some £400 in fees alone, not to speak of the student's maintenance during that time. Such a course is quite outside the possibilities of the poor student, unless he is able to gain one of the few grants or scholarships which provide sufficient assistance for the whole of the medical course. During the period 1929-34, the latest period for which figures are available, only 11 per cent. of medical students were in receipt of financial assistance from any sources, as compared with 41·2 per cent. for university students as a whole in 1937-38.¹

¹ Professor Mottram, a medical teacher, writes: "In the first place it is not too much to say that no poor person, no one without well-to-do relations to back him, can easily enter the medical profession. A career is not open to talent unless there is financial backing. Between five and six years' training is essential before a man can take a degree in medicine, and even then he is unfitted to go out into general practice. True, there are scholarships in science at the universities, particularly the older universities, which will carry the clever student through the

The legal profession is another for which the university provides a training which is almost entirely closed to the poor student owing to the exorbitant fees which are necessary to enter the profession, while such courses as architecture, dentistry, and even engineering are more expensive than others, and consequently outside the scope of many students. Moreover the poor student cannot usually afford the luxury of taking an arts or pure science course unless he is certain of some definite employment, or unless he has already decided to become a teacher, in which case he may qualify for a grant from the Board of Education. Thus although the children of professional men, or those from that strata of society, may find their way made easy for them, the position is very different for the child of a family in poor circumstances. For the sacrifices made to enable him to attend the university, and the necessity of qualifying for a career in which he can find permanent and remunerative employment, force him to choose a specific course and to bend all his energies to the passing of examinations and the winning of a degree. His period at the university can therefore almost be regarded as a first job.

Meanwhile the privileged minority have for the most part simply changed their residence from public school to college, and have few adjustments to make in their way of life, and not necessarily any decisions as to their future. After three or four years of residence at Oxford or Cambridge, working at whatever subject interests them most and enjoying the social life of the university, they are likely to find employment without much difficulty, for it is still true that the leading positions in society are held almost entirely by graduates of these universities, who find the way to advancement made easy for them by virtue of their social position, and of the

academic years of his training, and medical schools give scholarships to a clever student of biology, anatomy, and physiology which will carry him through the years of hospital training, but these scholarships are far too few in number." The poor student also has many difficulties in earning a living in private practice. The well-to-do student of moderate ability, however, suffers none of these difficulties, particularly if his father is a physician: "He is pushed, pulled or crammed through the necessary examinations and steps into his father's shoes when the time comes. Many a man enters medicine because his father has a good practice and from no inherent enthusiasm for the healing art" (*Frustration of Science*, p. 86).

immense prestige of the public schools, and of Oxford and Cambridge.

These are the main streams which illustrate the inequality of opportunity which exists within the university as well as in the educational system. Inquiries made by student unions at several universities have shown that about 88 per cent. of the students at modern universities have decided on a career before entering the university. The percentage is certainly very much lower at Oxford and Cambridge.

The principal motive influencing students to go to a modern university is the desirability of obtaining professional qualifications of one kind or another. Let us examine therefore in more detail the different careers for which the universities provide a preparation.

In most faculties the connection between training and employment is apparent; and the students who enter them must, in nearly all cases, have chosen their courses with a clear idea of preparing for specific careers. Such are the faculties of medicine and dentistry, of engineering, mining and metallurgy, of applied chemistry and architecture, of agriculture, forestry and horticulture. This list could be increased by adding certain specific courses at various universities, glass and leather technology at Leeds, for instance, or veterinary science at Liverpool. The students in these faculties therefore go to the universities mainly in order to obtain the knowledge and qualifications which will be immediately and directly useful to them on leaving the university. Including Oxford and Cambridge, there were 14,908 students in these faculties in England and Wales in 1937-38.

The faculty of pure science presents a more complicated picture, for the after careers of the students are not quite so clear-cut. In general, however, the main spheres of employment for which these students are prepared are easy enough to distinguish, and the relation of the training at the university to their employment is apparent. In the first place, a large number of students enter the teaching profession, and are in receipt of Board of Education grants whereby intending teachers are subsidized provided that, in return, they promise to follow the teaching profession for a certain number of years. This modern form of indentured labour is excused on

the grounds of the necessity of securing an adequate supply of trained teachers in the schools of the country. The student who accepts such a grant spends three years working for a degree, and a fourth year training to teach. A large number of students in the faculties of pure science have accepted these grants, and their profession has therefore been decided before entering the university. Consequently for these students, just as much as for the medical students, the training received at the university is essentially vocational in nature.

Apart from future teachers, the pure science faculty includes some who will spend their lives in research or in general scientific work, either at the university or at some institute, or in an industrial concern. Finally there are those, and their number is not high, who will enter industry on the managerial side, or who may find some employment other than that connected with science. For these, perhaps, the scientific training received at the university is not so directly related to their employment. In 1937-38 there were 6636 students in the pure science faculties in the universities of England and Wales.

We come now to the more difficult problem of the arts faculty, by far the largest of the faculties. It contained 17,804¹ students in 1937-38, of whom 7428 were at Oxford or Cambridge. In this analysis we have to leave the ancient universities on one side, for at these universities, especially at Oxford, it is to the various arts faculties that the majority of the students go for their education, and it is from these faculties that the graduates go to the many jobs which are open to them. It is an interesting fact that, in 1937-38, 81 per cent. of Oxford students were studying arts subjects, while at the same time the corresponding figure for Leeds, a typical modern university, was only 33 per cent. For students at the ancient universities there is usually no direct relation between their actual syllabus at the university and their future careers, a state of affairs which is entirely due to their particular and privileged position in present-day society.

¹ This figure, taken from the University Grants Committee report (1937-38), includes, as well as arts students proper, students of theology, fine arts, law, music, commerce, economics, and education. The figure for arts students proper is therefore considerably less than this.

In the modern universities the position is entirely different. Excluding for the moment students of theology, law, commerce, and the social sciences, with whom we shall deal later, the vast majority of arts students in the modern universities follow the teaching profession. The arts faculties in the modern universities did not really begin until the growth of the secondary-school system in this country made necessary a constant supply of university-trained teachers. To-day only about 25 per cent.* of the intending teachers at the universities go to the secondary schools, the rest teach mainly in the elementary schools of the country. Nevertheless the arts faculties in the modern universities often consist almost entirely of intending teachers who are in receipt of the Board of Education grant and have pledged themselves to this profession. Broadly speaking their position is similar to their opposite numbers in the pure science faculty, they are at the university to obtain the knowledge and qualifications necessary to enable them to find employment in an elementary or secondary school.

Apart from teaching, there are various other professions for which an arts degree is a qualification. Chief among them is, of course, the ministry, and this profession accounts for a large proportion of the arts students, particularly in the Welsh colleges.¹ Other types of employment are far less common. A small number find their way into the civil service or journalism or into some employment such as librarianship. But these are only a few, for the chief characteristic of these jobs is that there is no guarantee whatsoever that employment will be available at any particular time. The economic pressure on most of the modern university students is such that there are few who can afford to take the many risks which are involved in seeking employment of this kind; conversely the safety of the teaching profession, together with the financial inducements which are offered to intending teachers, is a great temptation for those who are forced, or who prefer, to look for security.

¹ An investigation at one of the Welsh university colleges showed that out of a total of 110 students entering the college in a recent year, 65 intended to go into the teaching profession, 35 into the ministry, while the remaining 10 had either not decided on their future employment or had some other career in view, such as the civil service.

In fact the arts student who studies some subject because he is interested in it, but who has no particular career in view, is apt to be very much a fish out of water in the hard realities of the present-day world. Certainly before the war he was the bane of the lives of Appointment Board officers whose job it is to find suitable employment for university students. These officers can give examples of graduates who have taken good degrees in subjects such as philosophy or economics, and who have been quite unable to obtain employment of a type suitable to their abilities and interests. Nearly all need a professional training of one kind or another, and the graduate who leaves the university unequipped in this way is at a sad disadvantage. The conclusion is that if the student wishes to ensure his future he is forced to choose subjects related to a definite career, and his work at the university must be continually directed towards this end. A striking confirmation of this is found in the fact that before the war an Appointment Board officer at one of the largest of the modern universities found such difficulty in placing arts students who were not going in for teaching that he actually advised students when they entered the university not to take an arts subject unless they intended to enter this profession. Such are the hard economic and social facts which the modern university student of to-day has to face. The position of the arts student at these universities is therefore entirely different from that of his counterpart at Oxford or Cambridge.

In fact, almost the only type of employment open to the arts graduate without a professional training is to be found in some of the biggest industrial concerns of the country. Such firms as Unilevers, Dunlops, Shell, and in some cases smaller local firms, take on graduates regardless of their subject, following the principle that it is best to let the student follow his inclinations at the university, and then to train him for the particular employment they have in view. Such jobs are, of course, on the managerial side of the industries, and at present absorb only a very small number of arts students.

Finally we can deal briefly with the other subjects included in the arts faculties. The legal profession, of course, absorbs a number of students, and although the time spent at the

university does not qualify them for practice at the Bar or as solicitors, yet the law degree saves some of the time necessary for qualification, and is a useful preliminary training for the profession. The same is largely true of theological students.

The departments of commerce which exist in certain of the modern universities are self-explanatory, and although in some cases they give a fairly wide education, they are chiefly directed towards producing people who will be competent in commercial life. Economics proper has only a very small number of students, and it is difficult to give any estimate of their future careers. It is probable, however, that most of them go into university teaching or research, or into commerce and industry. Finally the social science departments that exist in certain universities mainly prepare the students for social work of one kind or another.

Any discussion of the after careers of university students is incomplete without some mention of the position and prospects of women students. This is a subject about which much could be written, as it casts light on the whole position of women in present-day society. Here we can only point out the extremely restricted avenues of employment open to women graduates, which no doubt partly accounts for the fact that in 1937-38 the number of women students in Great Britain was only 23 per cent. of the total number of full-time students, while in the fourteen years from 1924-25 to 1937-38 the number of women students dropped by just over 1400. A few became doctors and dentists—there were 1913 female medical and dental students in 1937-38—but the rest, apart from a very small number who became architects and agriculturists, are to be found in the faculties of arts and pure science.

There, the only profession for which they are prepared in any numbers is the teaching profession, although a few enter some kind of social work. Many women students take up secretarial work, which necessitates a further training and offers few prospects of advancement of responsibility and interest. The only remaining profession, marriage, presumably absorbs a large number of women graduates, and usually absolves them from the necessity of seeking further employment.

The evidence in this chapter adds emphasis to the conclusions

already reached, for the close connection between the universities and the present form and structure of society is again demonstrated in the extent to which the modern universities exist in order to provide the necessary training for various types of employment.

This point is emphasized because it is so frequently forgotten or overlooked in current discussions on the universities, where the point to be proved is that the universities exist for the pursuit of truth and are quite unrelated to social institutions, while their students, therefore, need not be concerned with the vulgar possibility of having to earn their daily bread.

It is true that the young student who enters the engineering or medical faculty or who studies biology or English literature is usually genuinely interested in these subjects, and hopes that by going to the university he will increase his knowledge, technique, and culture, and will emerge in every sense a better-equipped individual than he was before entering the university. Such motives as these obviously play a great part in impelling young people towards a university education. But the fact remains that the fundamental motive is that the universities, by means of the training they provide, are essentially stepping-stones to the various desirable professions and careers in society.

The universities of this and every country have, of course, always given a vocational education of one kind or another, for in a sense the education of the future politician, bishop, or public schoolmaster in the arts faculties at Oxford or Cambridge is just as vocational as that of the technologist at a modern university. The only difference is that under the present social system very different social and moral qualities and attitudes are required from the former than from the latter, a fact which accounts for the different forms of the respective educational facilities and environment.

In conclusion, therefore, it can be said that the university provides mainly a vocational training, but whereas the children of poor parents find their choice of curriculum and, therefore, of intellectual and cultural development severely limited by economic pressure, the wealthy student can be said to enjoy genuine freedom of choice in these matters, since he is unhampered by economic considerations.

CHAPTER V

THE SYSTEM IN PRACTICE: (1) CURRICULA

It is remarkable how little public discussion there has been during the last few years on the all-important subject of the planning of university curricula. It is in keeping with the vague conception of the function of the university that this subject should be shrouded in mystery. Yet an examination of the curricula followed in the different faculties serves to underline the two clear tendencies of university training noted in the previous chapter: on the one hand the purely vocational training designed to prepare students for specific professions, and on the other hand the academic training in, for instance, the arts and pure science departments where the ideal is the pursuit of "knowledge for its own sake" in sharp contradistinction to the more "utilitarian" side of the university.

Let us examine first the departments—such as engineering, agriculture, medicine, and dentistry—where the object of the universities is to train competent members of the professions, and see to what extent their claim to do so is justified. In the first place one general conclusion can be drawn: the student's time is almost entirely occupied in acquiring a mass of knowledge and mastering the intricacies of technique necessary to enable him to pass the examinations qualifying him for this or that profession. The reasons for this restricted training are clear enough. The big industrial firms, for instance, which employ the technicians or chemists produced by the universities demand simply an efficient technician who, for a certain salary, will place his knowledge and ability at their disposal to be used for their own ends. The universities not being independent entities, but being largely conditioned by their environment and by the demands made on them, fall in with this position and confine themselves to the production of graduates fitted to fill these types of employment.

There are indeed certain factors which force them to acquiesce in this procedure rather than to uphold the principle of educating men with a wide understanding of the world

they live in, and an appreciation of the relation of their profession to social needs. For instance they are forced to fulfil their function of training as cheaply, as economically, as possible; a fact which makes it difficult for them to extend their activities beyond the lines so rigidly laid down.

It might also be said that it is important from the point of view of those forces which, in the last analysis, control the universities, that the graduates produced shall be content in their chosen careers, that they shall not be led to question the working of society, or the uses to which their talents and knowledge shall be put. Especially is this the case in a period of crisis when social and economic contradictions become manifest.

In considering university curricula, the importance of this point should not be overlooked. The effect of these considerations on the general pattern of university training can be seen at once if we turn to the more technical faculties. The engineering, medical, and other technical departments of the universities are crammed every year with hundreds of students who will emerge as doctors and engineers of varying degree of competency at the end of their time. Except in a few instances anything they have learnt about the world, or about such vital subjects as the potentialities of their profession in relation to the social needs of the time, will be due almost entirely to their own efforts, and will have been learnt in spite of the official curriculum.

Indeed it could scarcely be otherwise. For the criterion which the university sets itself must be that of the skilled engineer or skilled doctor according to the values of the ruling forces of present-day society. Such skill is mainly a matter of technique. Since in each of these subjects there is a tremendous amount to be learnt, the university concentrates on cramming the student as full as possible of this knowledge and skill.

A good example of the type of graduate the universities aim to produce is expressed with a refreshing frankness in the calendar of a northern university, which is worth quoting because it lays bare the real aim of a technical training at a university. This university maintains a department of leather technology whose purpose is to produce the "highly trained

technologists" necessary for leather manufacture. "The leather industry department provides a complete course of lectures and practical instruction in the special technology of leather manufacture. The aim in the first instance is to familiarize students both by information in lectures and by practical handling of materials with the principles and details of the tanning process, and the reasons why particular modes of treatment produce particular effects. The knowledge once gained, the student is in a position to judge of the cause of defects and the changes which it is necessary to make to prevent or remedy them, or to modify the leathers produced in such a way as may meet the requirements of the trade."

No doubt the owners of the leather industries in the northern industrial town are perfectly contented with the products of this university. For our purposes it should be noted that the leather department at this university has no other function than to turn out graduates who will be able "to modify the leathers produced in such a way as may meet the requirements of the trade."

The same is as true of the medical as of the engineering curriculum. The medical student's training is directed to making him as efficient as possible in the purely technical matter of the cure of illness and disease. His life at the university is as constant a rush as that of the engineering student—he has even more to learn. Any encouragement to learn about the problems of the people, of the social rôle of medicine, of the preservation of normal health is equally lacking. Indeed the position of many doctors in society to-day is such that they need none of this knowledge to earn a perfectly reasonable living. From the point of view of monetary reward it is far more essential that the majority of doctors should know how to play bridge and golf. Thus the universities turn out each year hundreds of doctors who are ignorant of the social needs of the people and of the society of which they form a part. Since their monetary reward and social status is high, and since for the most part they are drawn from the middle classes (the expenses of training being considerable and the scholarships few), many medical students tend to accept the values which are thrust upon them.

The main function of these departments then is to produce

trained technicians, and the whole energy of the department is directed towards this end. This conception of the purpose of university education naturally determines the whole method of teaching a particular "subject." Anything which does not promote this aim is rigidly barred from the curriculum, while time is somehow found for any additions which are likely to make the student even more of an expert.

One of the most obvious results of this attitude is the serious overloading of the curriculum. There has been a vast increase in our knowledge of these subjects in the last fifty and more years, and the technique involved has consequently become more and more specialized. If, therefore, the aim of university training is to turn out better and better experts, then the students must be taught more and more about this knowledge and this technique. The only limiting factors to the amount which the student is taught is the time available at the university and his physical and intellectual powers. A position is reached therefore, which is general throughout the universities of this and other countries, where the students in these faculties have so much to learn that they live in a constant state of rush and hurry. Knowledge is crammed into them by means of textbooks, large numbers of lectures, and laboratory periods. Every morning and afternoon the student is at work on these subjects, and if he is conscientious, or if the economic pressure on him is intense, he will spend the majority of his evenings on his notebooks and textbooks. His whole mind and energy is devoted to learning his subject, and it is no wonder that the majority of students find no time for any other interests except an occasional cinema or dance, conditioned by the reaction to his work and by a search for pleasure. In the effort to "keep up" the students tend to become mere automata, learning up what is doled out to them, and of necessity closing their minds to anything which does not serve this immediate purpose. When it is realized that all this work is directed solely towards making the student proficient at his particular job we begin to get a clearer understanding of what university "education" may mean to-day.

The overcrowding of the curriculum is not the only evil which results from the limited conception of the function of

the university. Another is the very high degree of specialization which is its inevitable and indeed natural corollary. Obviously there is "no time" to devote to lectures or discussions or reading on any matters which are not considered directly necessary for the future doctor or engineer. The universities therefore give the student an education which is entirely specialized, which follows certain well-defined grooves, and which puts him in blinkers.

It is only a student with an enlightened background, with a considerable degree of independence and initiative, or one who is fortunate in his teachers, who will be able to break free from the unusually compressing form of university teaching and educate himself in the true sense of the word by discussion, reading, and experience. He will find many obstacles. Firstly the large amount of technical matter he has to imbibe in order to gain his degree and ensure himself a living; secondly the constant round of lectures and laboratories and evening work, much of which is compulsory and takes most of his energies; and thirdly, and most important in its influence, the whole morality which is implicit in his environment generally, both in the university and outside. This morality is inimical to questions and to the free exercise of initiative and independence, and indeed often regards these qualities as dangerous. The constant spur which is presented to the student by parents, by the university, and by the dominant social influences, is a safe job and a secure social status, and this resolves itself at the university to the cramming for a degree—the passport to this earthly paradise. Although the student may have misgivings, particularly in such a period of world history, and although the paradise may begin to appear increasingly unsatisfactory, yet even to-day it is only a courageous student who is able to maintain his sense of proportion and his desire for life and knowledge—real life and real knowledge—under such a barrage.

It is partly in this way, therefore, that the universities become isolated from the people. In the training they give to the students they are in no way concerned with the social needs of the community. On the contrary, at least in so far as the more directly vocational departments are concerned,

this training is directed towards the satisfaction of purely sectional interests.

If we turn to the faculties of arts and pure science we find a state of affairs which is outwardly very different although inwardly very similar. It is outwardly different because here the universities profess very different objectives. We appear to have stepped into a purer atmosphere, remote from the hard realities which condition the education elsewhere in the university.

These faculties profess an unworldly indifference to the future careers of their students, and put forward quite different theories as to their functions; they ignore the fact that their purpose is chiefly to provide future teachers with sufficient knowledge to enter their profession.

However, university education must be justified in some way, hence the variety of theories advanced to justify an arts course, most of which are pleurably vague and comforting. The conception underlying all these theories is that the acquisition and handing on of knowledge and culture "for its own sake" is in itself a valuable process. To spend three or four years at the university learning about one or more "subjects," history, for instance, Greek, or botany, becomes, therefore, a valuable "intellectual training"; in so doing the student will gain something that otherwise he would lack, in some undefined way his personality will be improved, and he will be better equipped to face the battle of life.

At once the crisis and bankruptcy of modern thought, reflected in university teaching, becomes apparent. For in this justification of university education there is a conflict which explains the whole inadequacy of teaching at the present time, a conflict which arises from regarding the vast and growing cultural heritage of mankind in every sphere as something which can be separated from the needs and activities of the people of the world. In the universities, knowledge and culture has as its admitted object mainly the development of the personality of the individual student. It is this conception that causes the sterility of much university teaching. Discussion is good, we are told, simply for the purpose of discussion; to learn Greek or "history" is good because it is good to know Greek or "history." In this way these

subjects are taught in a kind of vacuum and have little to do with the world in which we live.

Since there is no philosophy universally recognized which explains the laws of development of society, and which therefore acts as a unifying principle making clear the relations between various aspects and stages of human knowledge and activity, knowledge can be split up into various groups or "subjects" which can be dealt with in complete isolation from each other. Hence arise the subject groups in the universities, "history," French, German, Greek, botany, and so on, each of which is artificially separated from the other, and develops mythologies and conventions of its own. Their boundaries are arbitrarily fixed and they become specialisms studied for themselves alone, and providing, in a sense, their own justification.

This process can easily be traced in the universities, where the ideal which is set before the students is that of the "scholar" and the whole education in the arts departments directed to turning out scholars. The fact that only a very small percentage of the students are capable of reaching the standard necessary to earn this title means that for the large majority the education fails in its avowed purpose—a fact that is at length becoming realized by university authorities, who therefore search vainly for some other object for university teaching and attempt to set up different curricula on a "broad" basis to give a more "general" education. Within the limits of the dominant methods of thought, however, they are faced with an almost insoluble problem, and the various efforts made to solve it have tended to be largely ineffective.

The criterion of scholarship is, in fact, the only ideal the universities are able to put before the students in most of the arts faculties, and it arises naturally from the separation between culture and activity, and the splitting up of that culture into fragments. The only possible aim becomes that of being adept and erudite in the particular fragment of culture which has been chosen. Such a conception of scholarship has little in common with a true scholarship which endeavours to discover facts and theories in order to throw light on the past and deepen our understanding of our cultural heritage. Hence the university ideal of the "exact scholar"—one who spends his life learning more and more about some

small aspect of our cultural heritage, and who probably knows little about anything else.

It is at Oxford and Cambridge that we find this attitude in its most highly developed form. This conception, after all, has its birthplace at these universities, and it is easy to see the temptation, as modern life becomes increasingly complicated, for the young don to lose interest in the world about him and to spend his time delving deeper into the intricacies of his subject, and enjoying the society of the many other erudite scholars who have made Oxford and Cambridge their home. But the modern universities have followed in the footsteps of Oxford and Cambridge in this matter. The same conceptions, the same ideals, characterize the teaching in lecture and seminar rooms all over the country.

In fact this attitude is a denial that knowledge has any useful purpose to serve in society. The pursuit of knowledge, or of "truth," becomes a pleasant game for the delectation of the few who have the means to afford it. When those who teach in the universities are themselves specialists and scholars only in one "subject," when they are largely ignorant outside their own sphere of learning, then the evil is complete, and the "subject," whether it is styled history or botany, becomes completely closed and isolated. Knowledge is not considered as the essential precedent to action, or the means of enabling man to understand the workings of society so that he may achieve control over its development. On the contrary it is considered as something divorced from life and action.

All the evils of the isolated treatment of particular subjects therefore find their origin in the universities. Where "general" degrees are taken, and the student learns two or three or more subjects, the evil is often intensified, for he merely learns less about so many more specialisms, since the university is usually unable to integrate the various subjects and the various teachers are specialists only in each one. In this way the implications of a negative philosophy of life become apparent. Those who are unable to offer or to agree upon a satisfactory interpretation of the development of society or of the relationship and interaction between material conditions and social thought and being, and unwilling to question the workings of society, close their eyes to the relationship between various

aspects of human activity. Knowledge therefore is said to serve no useful purpose. There is no guarantee that it may not one day be painlessly liquidated as in a fascist state. Hence the "game of learning" which is played with successive generations of university students, and which serves to provide them with sufficient knowledge to become teachers in their turn and to mislead future students. But it has other effects, since it tends also to obscure their understanding of the vital issues of the day, to divert their energies and thought from the important problems that face the people, and to limit their understanding and consequently their use, for their own purposes and in their own interests, of the cultural heritage of mankind.

A close examination of almost any university curricula will bear out these assertions. The historical development of the subject and its relation to changing social and economic conditions is rarely touched on. The history that is taught is usually the isolated history of a particular subject, dealing with the changes in men's thought and knowledge in a small sphere of our environment or of human activity, and unrelated even to the general historical conditions of the time. Such, for instance, are courses of lectures on the "history of economic thought," or the "history of criticism," which do not show the relation and interaction of men's thought and knowledge to developing social conditions. A true understanding of the development and social implications of a particular sphere of human activity or thought can be obtained only by showing its relation to other spheres of culture and activity. But the study of a subject for its own sake has become the hall-mark of the universities, where, for instance, English literature, which is, by its very nature, the reflection in words of the whole development of society, is merely the study of a "subject" commonly known as "Eng. Lit.," something which is set on a pedestal of its own, and which has its "own" history and its own "criticism"; a vast body of "culture" which began about A.D. 900 and ended in 1900, and which the unfortunate student has to plough through in order to get his B.A.

There are, of course, exceptions, where the success of particular departments or lecturers give an inkling of what

might be done. Thus in some universities the teaching of geography does not suffer to the same extent from the common defects of the arts faculties, and in particular at Manchester and Liverpool, under Professors Fleure and Roxby, the students are allowed considerable freedom of choice and independence, and the subject is taught on broad humanistic lines.

In spite of these exceptions, however, there is the same overloading of the curricula in the arts faculties as exists in the applied science departments. The reason, however, is slightly different. It is in this case the complete absence of any criteria for the building up of a rational syllabus. If a subject is taught in isolation, for itself, in order to produce scholars, then the only criterion is that the student should learn as much about that subject as possible in the time at his disposal. And if knowledge serves no useful purpose, if it has no clear aim, then there is no reason why one particular fact should be more important than another. This is the quandary with which the framers of the syllabus are faced, and this is the reason why many arts courses have degenerated largely to the memorizing of great masses of facts. Distinguished modern historians, such as the late H. A. L. Fisher for instance, tell us that history explains precisely nothing.¹ How is it possible to frame a syllabus on this basis? There is no reason either why any thing should be left out, or any thing put in. History becomes a pleasant game of no earthly significance.

The only solution is found in putting in as much as the two or three or four years can carry. It is of no moment whether the emphasis is on the Middle Ages, medieval history, or the

¹ "Men wiser and more learned than I have discerned in history a plot, a rhythm, a predetermined pattern. These harmonies are concealed from me. I can see only one emergency following upon another as wave follows wave, only one great fact with respect to which, since it is unique, there can be no generalizations, only one safe rule for the historian: that he should recognize in the development of human destinies the play of the contingent and the unforeseen. This is not a doctrine of cynicism and despair. The fact of progress is written plain and large on the page of history; but progress is not a law of nature. The ground gained by one generation may be lost by the next. The thoughts of men may flow into the channels which lead to disaster and barbarism."—*A History of Europe*, by H. A. L. Fisher, vol. i, page vii.

year 1750. It does not matter much if the university "history" often ends in the nineteenth century. In any case it will serve its purpose as a "training of the mind." History therefore tends to become a cram of unrelated and ill-digested facts. With certain exceptions the same is true of most of the other "arts" subjects. Nor is the position any different in the departments of pure science. It is not unusual to hear the professors say that they wish they could cut down the curriculum by 40 per cent., for the difficulty is intensified here by the vast increase of knowledge about particular subjects and sub-subjects during the last forty or fifty years. Zoology and botany, physics and chemistry have advanced enormously in this time, as the boundaries of what is known are pushed back. Facts and more facts, which the student has to learn, pile up in their thousands, and here again, because there is no criterion of selection, no clearly defined aim, the easy way is taken of constantly increasing the syllabus and at the same time constantly narrowing its basis. Thus Professor Bernal writes: "The curriculum of any [science] subject changes by an uncomfortable process of accretion and compression," when a "new element of knowledge is admitted, it is tacked on to the end of the syllabus and the rest of the subject is appropriately squashed to make room for it" (*Social Function of Science*, p. 78).

The result of this approach is that the university student is successfully isolated from a real understanding and appreciation of culture and science, and from an understanding of its social rôle. The official curricula at the universities succeeds, consciously or not, in neutralizing him from the point of view of social action, since it offers no explanation of society or its development. This is seen particularly clearly in those subjects which purport to deal with the real problems of society—as, for instance, economics. In fact social studies play scarcely any rôle at all at the universities. Apart from the Economics and other smaller faculties at Oxford (including the Modern Greats faculty), Cambridge, the London School of Economics, and one or two other universities, there are very few students in these departments, and those taking the courses are mainly training to be social workers of one kind or another. The "subject" of society, therefore, which is inclusive of all

aspects of human activity, is a field very little touched by the universities.

The study of economics provides an object lesson in the attitude of the universities. The economics taught tends to be largely of an academic theoretical type, based on the assumption that the present system is the only imaginable system of productive relations, and so confining the student to a consideration of ways and means by which the present system can be made to work better. There is no attempt to interpret the system in terms of historical development, rather it is regarded as something God-given and eternal. Hence the professors play the part of apologists, rather than of interpreters. A mythology is developed which bears only the faintest relation to the activities of the people, while suggestions for radical transformation are complacently pooh-poohed as "sub-human."

However, since economics is essentially a social study, university courses have to take account of actual happenings in the world, even if the economic tendencies and theories are seldom related to political and social movements. Thus the students have opportunities, which are not afforded to students of most other arts subjects, to learn something of the world in which they live, since such matters as unemployment, the organization of certain industries, and foreign trade must form part of most economics courses. Unfortunately the more practical sides of economics training are seldom related to each other, in order to present a comprehensive picture of society. Students of economics too often find their minds becoming befogged with the refinements of its more abstract theory, which becomes like a game of chess played in the rarefied atmosphere of the lecture-room, far removed from the outstanding questions people are asking all over the world. There is no doubt, however, that at the London School of Economics, a college entirely devoted to social studies, there is a greater proportionate interest in the wider problems of society than at other modern universities.

In this examination of the practical working of the universities the realities accompanying the fine words about "pure" knowledge have been revealed. Most students in the modern universities are there to qualify for some career

or profession, and this is as true of the arts and pure science faculties as of the other faculties. The present function of the universities is to provide the necessary training. The whole planning of his university courses and, in addition, the economic and social pressure to which the student is subject make it necessary for him to become as expert as possible in his particular specialization, and so to pass his examinations.

This is the reason for that separation between "work" and the rest of life which is a feature of the modern universities, as it is of modern society as a whole. "Work" is a compartment that is shut off from pleasure, from enjoyment, something that is done from 9 A.M. to 5 P.M. every day in the university. In this way culture has been made something essentially sterile and meaningless to the majority of students in the modern universities.

The student in time emerges from the university as a fully-fledged graduate. He has amassed his facts and passed his examinations. But, whether his education or training at the university has been avowedly professional or supposedly "pure," when he graduates as a teacher or doctor, scientist or engineer, he is perhaps an expert in his particular subject, but usually ignorant of anything outside his specialism. Those who leave the universities with a wider understanding of the world they are to work and live in have, in most cases, obtained the best part of their education in spite of the official university teaching.

CHAPTER VI

THE SYSTEM IN PRACTICE: (2) METHODS OF TEACHING

A VERY close relation exists between university curricula and the methods of teaching which are used to convey information and develop the capabilities of the individual students. The two should not really be considered separately, for however good a particular syllabus may be according to any criteria, its effect will depend largely on the manner in which it is imparted to the student.

We may begin with the perennial question of the lecture system. Lectures have always been the traditional form of teaching at the universities. Before the days of printing, when no books were available, they were of course the chief method of bringing knowledge to the students. Since those days, books in their thousands have been turned out from the printing presses every year, but still the predominance of the lecture system has never been in doubt, and to-day it has achieved the status almost of an institution, unalterable and indispensable.

The system is suspect not only because of its traditional nature, but also because the historical conditions which made it the only possible form of imparting information have long since passed away. For centuries it has been criticized. Dr Johnson, for instance, condemned it root and branch almost two hundred years ago. In the nineteenth century it came under the fire of many university reformers, while in the last few years criticisms have grown in number until they have become a veritable spate. Not only have the students constantly inveighed against it at conferences, as well as in reports and suggestions to university authorities, but the Association of University Teachers has produced a very critical report on the subject, while the University Grants Committee itself has made some criticisms about the way the system functions at present.

It is difficult to generalize about lectures, they vary in quality according to the lecturer, and in type according to their purpose. An inspiring teacher can make the dullest subject interesting to the student, while the opposite is just as true. Lecturing is above all an art, but one that is too little understood in this country, although anyone who has heard French university teachers will realize the high pitch of perfection to which it can be brought.

Lectures serve varying purposes in the universities. They can be used purely for imparting information, and often long courses of lectures of this type are given lasting for a term, or for a full year. They can be used to provide a survey of any particular subject, in which case they often attempt to "cover the ground" and require little or no reading in addition. They can be used to describe experiments, or particular

methods of solving particular problems, to deal with recent advances in theory or knowledge which cannot be found in books. Finally they can be what are often described as "inspirational" lectures, whose nature depends essentially on the personality and culture of the lecturer. Certain lecture courses may not easily be fitted into any of these categories, and their variety shows the danger of generalizations. There are, however, certain important characteristics which are common to all such courses.

From the point of view of the student, the lecture is essentially a passive way of learning, for it is always a monologue, a discourse by one man, to whom the rest must listen. The student takes no active part in the proceedings, beyond transcribing the lecturer's words on to paper, or allowing his brain to function as a result of the stimulus of the spoken word. It takes a bold student to start refuting the words of the lecturer, or to ask for explanations while he is speaking.

A lecture can be delivered to almost any number of students, from one to more than three or four hundred, and examples of audiences of both these extremes can be found in the universities. In the latter case it cannot be adapted to the peculiarities of the student; it can take no account of different methods or different speeds of learning, and does not provide for personal contact between teachers and taught. In so far as it enables a large number of students to be dealt with at the same time, the lecture system is essentially, however, a cheap method of conveying information or ideas.

We have already mentioned that the lecture system is the staple method of teaching used in the universities. Generally lectures are compulsory, and a record is kept to ensure that the student makes about a 75 per cent. attendance. What is not commonly recognized, however, is the extent to which the system is relied upon. For instance the first-year student, taking the intermediate examination, may have anything up to twenty-two or twenty-three lectures a week. The student taking a Pass degree either in the arts or science faculty seldom experiences any other method of teaching, and throughout the whole of his university course may have to attend a very large number of lectures. In the applied sciences, in engineering, and during the first three years of

medical training, the large amount of factual material to be learnt is dealt with by courses of lectures, so that the student usually finds his whole morning occupied, while the afternoons are spent in the laboratories. It is not unusual for the engineering student to find he has as much as thirty-five hours of set work of this kind, which takes no account of the time he has to put in on his own.

For the Honours student in his last year or two the position is often different, although it is true that in some cases the number of lectures continues almost unabated until the student finishes his course. At one well-known college students of English literature have to attend eighteen lectures a week even in the final Honours year. This, however, is an exception. Towards the end of his time at the university the Honours student in arts and pure science is usually left much freer, and may only have to attend perhaps five or six lectures a week.

The rest of the time he spends on his own work, with perhaps one or two discussion classes or seminars, or even a certain amount of individual tuition. The brilliant student at a modern university may in fact be better catered for than at Oxford or Cambridge. Because he is rarer the teachers often attach more value to him, and are willing and able to give him more attention than would be possible at the ancient universities.

Except in these cases, however, the compulsory lecture system is relied on almost exclusively in the modern universities. There is no doubt that what is usually an excessive amount of lecturing has a dulling effect on the intellect. It too easily induces a type of mental inertia, which is content conscientiously to transcribe every word the lecturer utters, to memorize the notes, and reproduce them in essays or examination papers, and the student has little alternative but to follow this method. In the words of an English lecturer: "At — and elsewhere, there are *far too many lectures*. Many students go to 20, 21, 22, or even 23 a week. Add to this overpowering number of lectures the fact that many students have to spend a considerable part of each day travelling, and it is easy to understand how little time they have to read and think." The kind of mental inertia which

results from sitting passively for many hours each day, taking notes from lecture after lecture, is something which should be utterly alien to the universities, for it tends to turn out students who have never faced the necessity of thinking for themselves, and who are prepared to accept their ideas ready-made as they are given them. It stultifies the free exercise of the critical powers of the individual, dulls his mind, and represses his initiative.

To spend all the mornings, and in some cases the afternoons as well, day after day, week after week, listening to lectures, is at best not an intellectually stimulating process. It becomes definitely evil when lectures are used to cram the student with masses of facts: it is unfortunately this kind of lecture which too often predominates in the modern universities. Whether it is owing to the lack of books available to the student, or to the overcrowding of the curricula, or whether it is simply because it is easier, many lecturers turn themselves almost into walking textbooks, and their lectures degenerate into the dictation of notes. Some light is thrown on the difficulties that face university lecturers by the following letter received from a young teacher. "When I first went to — from an older university I had certain ideas as to what lectures ought to be. They should aim at generalization and theories that might illuminate the full facts that students found out for themselves; the object was to stimulate, not to give information. But this just didn't work. It assumed a basis of factual knowledge that wasn't there. When I recommended books to my class of fifty or sixty, there was an immediate scramble in which three or four were successful; one or two others might get them from local libraries. The overwhelming majority were too poor to buy books. I was slowly and regretfully forced to the conclusion that I must become what I despised so much, a purveyor of mere information. All my theories had assumed the facilities of the older and richer universities; without them they didn't apply. I had to turn myself into a textbook."

In these circumstances the staff as well as the students come to regard lectures mainly as an opportunity for "covering the ground," and so ensuring that the student at least has the opportunity for learning what will be required in the examina-

tions. Year after year many lecturers deliver the same lectures on the same subjects, often using the same notes. The *reductio ad absurdum* of this method of teaching is the true story of the "lecturer" who used to enter the classroom, and mumbling indistinctly fill twelve boards with facts and calculations, after which he left the room. Logically, of course, this is a most convenient way of conveying the information.

Criticism is thus directed mainly against the excessive number of compulsory "informational" lectures in the universities. It would, of course, be ludicrous to condemn all lecturing out of hand. There is a necessary place, for instance, for those lectures which deal with recent advances in a subject, put forward novel ideas and theories, or bring together material scattered diffusely in various books or papers and give a general background to the subject studied. Unfortunately the vast quantity of informational lectures given to-day are an entirely different proposition. If such lectures are so unsatisfactory why is it so many are given? It is difficult to resist the conclusion that the chief reason is that they are considered adequate for their purpose. Objectively the function of the universities to-day is not so much to turn out men and women with independent and flexible minds and a comprehensive understanding of their environment, as to produce graduates who have imbibed the necessary facts and knowledge to enable them to be more or less proficient in their careers.

Hence the lecture system—a most effective system for this purpose, for lectures ensure that the number of facts due to the overcrowding of the curriculum will pour into the heads of the students, will be transcribed faithfully into notebooks, and will be learnt for the examinations. Lectures take the place of the reading of books, exclude the possibilities of discussion and the exchange of ideas, and minimise the risk that the student will stray from his appointed path. It is for this reason that there is insufficient money forthcoming to enable the modern universities to make any radical changes and to introduce more informal methods of teaching and more freedom for individual students. Lectures remain supreme, despite the repeated attempts of students and enlightened staff members to reform the system. While outmoded from

the point of view of *educational* adequacy, the system remains a very effective *instructional* instrument for those purposes, never admitted, for which it exists.

The most important of the other methods of teaching which are used, to a far smaller extent than the lecture system, are seminars and discussion classes. Theoretically a seminar differs from a discussion class in that it is a more formal method of teaching. A special paper is written by one of the students under the direction of the teacher, and is often circulated beforehand. After it has been read to the seminar, the discussion is carried on round the class in a formal manner. A discussion class, on the other hand, is usually much freer. Such classes may be run in conjunction with a course of lectures, in which case they are used for elucidating the difficulties of the students, and for discussing various points of interest, or they may be run separately from the lectures for the purpose of general discussion. In either case a class of over fifteen is an unwieldy number; probably the most convenient size is seven or eight students.

Classes of these kinds do not take a large place in our universities. Oxford University and the London School of Economics are the only places which have developed this method of teaching to any considerable extent. In the modern universities such methods are chiefly confined to Honours students in their final years, and are more general in the arts departments than in any other faculty.

It is clear that this method of teaching is very different from the formal lecture. The main difference lies in its provision for contact and discussion between staff and students. The student is treated as an individual rather than as a unit in an audience, and the opportunity is given for that clash of mind with mind that should be an essential part of a university education. It is extraordinary how little contact of this kind there is at the modern universities. From the point of view of teaching it is limited only to the more advanced Honours students; for the rest, the staff, except in the laboratories, appear only at lectures, a method of teaching which essentially separates staff and students.

Discussion classes of all kinds, therefore, provide the possibility of ordered discussion with experienced teachers

centring on the interests and difficulties of individual students. They are a stimulus for the student to think more widely about his subject, and to express his ideas and theories in an ordered and intelligible manner. They give him the opportunity of submitting these ideas to the criticism of his teacher and fellow-students, while they give the teacher a chance to direct the student's work into profitable channels, rather than leaving him to find his own way, too often in the dark. Frequently the student has to produce written work, something which is too often lacking in the modern universities.

The advantages of this method of teaching are clear. Its success of course depends both on the staff and on the students. By no means every university teacher is capable of running such classes successfully nor is every university student prepared to take the trouble to make them a success. But the frequent argument that most students are incapable of profiting from these discussions must be regarded with the deepest suspicion. The fault lies more probably in the way these classes are carried on, and in the excessive amount of lecturing the student has previously had to undergo; an experience which may have dulled his intellectual initiative before he reaches the stage of discussion classes.

There is a strong demand from the students for an increase in these methods of teaching, and for a reduction in the number of lectures. This has been expressed at the National Union of Students, as well as in most of the recent reports on university teaching produced in the various universities and colleges. Although a certain measure of success has been achieved, and some university departments have reduced lectures and adopted the use of printed notes, and have increased the number of seminars and discussion classes, in general there has been little change over the last years. This is immediately due to various reasons, chiefly financial, such as shortage of staff, lack of books, and often lack of space (private rooms for lecturers, seminar rooms). In addition the overcrowding of curricula presents many difficulties, and this and the force of tradition coupled with inertia ensure the continuance of lectures. All these obstacles could be overcome if the provision of such classes were considered of sufficient importance. The initiative shown by a few depart-

ments in making considerable changes in the methods of teaching, even under present conditions, shows that much can be done in this direction when the inertia of tradition is broken down.

An ever-closer relation between teacher and taught can be achieved by the method of individual tuition. This system has been fully developed at the older and richer universities, where nearly every student goes once a week for an hour to his own tutor or supervisor. Recently it has been more usual for two students to go together rather than one alone. In the modern universities, partly owing to lack of finance, lack of staff, and lack of time on the part of students and staff, this system is scarcely developed at all. In one or two universities some arts departments do succeed in working such a scheme for their Honours students. Its scope, however, is extremely limited in relation to the whole student body.

Where these facilities for individual help and tuition of this kind exist it is tremendously appreciated by the students. It is appreciated, above all, because of the value of a close personal contact between student and teacher. Such tuition is usually conducted in an informal atmosphere, one of easy-chairs, the fireside, and cigarettes, and the relationship which may result is likely to be of inestimable value to the student who, during some of the most impressionable and formative years of his life, has the benefit of regular discussion and exchange of ideas with a university teacher. It is just this type of relationship which is lacking in the modern universities.

Naturally the system has its dangers. It can degenerate into a monologue by the teacher, or into spoon-feeding the student with information for his examinations; some students may be incapable of profiting by the opportunities it offers. Where it is properly done, however, it can be of very great help to the student, who can bring his own difficulties and ideas for elucidation and discussion. The teacher can help the student in innumerable ways, directing his energies into the right channels, advising him about books, and seeing that he does not waste his time in irrelevancies, while the production of an essay each week or fortnight, to be submitted to expert criticism, is in itself a valuable training. The student has to assimilate a body of reading, put it in shape

and be able to support it by reasoned argument. Too many students at the modern universities have no opportunities of this kind. In some departments many go through the whole university course without writing a single essay for criticism, and the only time when they have to put their ideas together in an ordered manner is during the terminal examinations. It is no wonder that some students, especially from the science faculties, emerge from the universities almost illiterate.

The obstacles to the development of individual tuition are similar to those preventing an increase in seminars and discussion classes, but in heightened form. For instance lecturers would have to have their own rooms at the universities, while at present very few are able to, and the short time that the student spends at the university (usually from 9 A.M. to 5 P.M.) makes it difficult to fit such tuition into the already crowded time-table. It is equally true to say that if this system was really felt to be valuable, if there was a real determination to bring it into being, steps could be taken to overcome these obstacles.

The final method of instruction can be described as "laboratory teaching," or teaching carried on while the student of pure or applied science is working in the laboratory. These practical classes are taken by members of the staff with the help of one or more "demonstrators," usually research students, who are ready to help the students in the work they are doing.

It is claimed by some that these laboratory classes provide the opportunity for a close personal contact between students and teachers, and that therefore other methods of achieving this are unnecessary. Sometimes they may have this effect, especially among Honours students in the best and smallest departments. Certainly they provide some measure of personal contact, but in general this assertion is not supported either by teachers or by students. Usually the student has an experiment to finish in a given time, and has little opportunity for leisured discussion, and there is thus inevitably a certain atmosphere of bustle and hurry which does not promote the type of relationship possible in classes or through individual tuition. The general experience seems to be that the student consults the teacher or demonstrator on matters which have an immediate bearing on the particular experiment

on which he is engaged, and that discussion is largely confined to technical questions. In the words of an interim report produced by the Association of University Teachers: "Laboratory discussion is nearly always purely instructional and practical in bearing." Thus while it is an essential part of the teaching of science, it is no substitute for more informal methods of teaching.

A glance at the teaching methods employed at Oxford and Cambridge throws a further light on the contrast between the two university systems, for at these universities the lecture plays a far less important part and is in fact subsidiary to the system of individual supervision or tutoring. Except in one or two faculties no student need attend lectures unless he wishes, and then he may make his own choice. The large number of well-stocked libraries ensure him almost any book he may require for his work. Hence the difference between the educational technique at Oxford and Cambridge and at the modern universities in instruction. At the ancient universities the student is left very much to himself and has considerably more time and opportunity to read and discuss with his friends than the student of the modern university.

A word should be said here about the appointment of staff at the modern universities, which is obviously of primary importance in relation to the methods of teaching. Strangely enough it is seldom that the members of the staff are appointed for their teaching ability. More often it is the quantity and quality of the candidate's research work which is taken into account—and, it is whispered, the former of these conditions sometimes has the more important bearing on the appointment. Little effort is made to find out about the teaching ability of the candidate, and although it may be admitted that this quality is difficult to estimate, it must also be recognized that the method by which appointments are made solely on research ability has very definite dangers. The chief of these is that an expert research worker may be a very bad teacher, he may not even be interested in teaching, so that this may well suffer in the interests of his research. It is also quite likely that the brilliant research worker may be of a retiring disposition, quite unsuited to the lecture or seminar room of the modern university.

The best and happiest departments in the universities are those which are staffed by teachers who have a human interest in their students and who enjoy teaching. It is particularly noticeable that it is these departments which have gone furthest in adapting their methods of teaching to the more informal methods which have been discussed in this chapter.

EXAMINATIONS

No discussion of the methods employed at the universities would be complete without a mention of examinations. The most important of these, the one which overshadows the whole of the degree course, is naturally the final examination, when the degree is given which the graduate will bear throughout his life. The general conditions of this examination are well known; the desperate revision during the preceding weeks, the intensive examining for a few days, the three-hour papers, and in a few cases the *viva voce*, the thesis or original dissertation. This is the climax of the university career, when the work of three or four years is tested and the student's ability assessed.

In present conditions these examinations tend to be regarded as the be-all and end-all of university life. Often the gaining of as high a degree as possible becomes the one object of university life worthy of attention, with the result that all other activities and interests tend to be subordinated to this all-important aim. The examination is often regarded as an end in itself, and tyrannizes over the whole of the university education.

Examinations of the modern type are essentially a feature of present-day society, for at no previous period have they had the importance they have to-day. Nor is it difficult to see why this has come about. While university education is restricted in its scope and indissolubly linked with particular careers carrying with them varying degrees of social prestige and financial reward, certain of which are considered more desirable than others, it becomes necessary to separate the sheep from the goats and to award what may be called certificates of varying degrees of competency. University examinations are therefore a process of selection of the fittest,

for the students must be classified and labelled so that the world outside can see to exactly what extent the graduate has absorbed the necessary knowledge to justify his employment. It is to the prevailing values of the outside world that the universities, however much they may value their "autonomy," must finally adjust themselves. The formula for university education therefore tends to become, in the words of Professor Mansell Jones: "Give instruction—test receptivity—classify results."

This necessity, as accepted in the universities, is just another aspect of the fundamental conflict between the demands at present made of the universities, and the demands of a true education, adapted to the real needs of the students and of the people. The concentration on examinations, and the form which they take to-day, introduces a rigidity into university education, as it does, indeed, throughout the educational system, clamping it into certain grooves and allowing little freedom of movement from the allotted path. It has the function of ensuring the efficiency from the point of view of "results" of the whole present system of "education."

The nature of the examinations themselves accentuate this conflict. In a word, they put a premium on memory work and fluency and test the accuracy of information rather than test the ability to use it. Various devices such as theses and *viva voce* examinations are used to minimize these dangers and are attended by varying degrees of success. But in general the examinations ensure that students who have concentrated on the official syllabus, and who have conscientiously learnt up their lecture notes and the necessary facts and figures, are the ones who are likely to do best, or certain to do well. The evil which is likely to result has been well summed up by a critic: "The cramming with its consequent mental indigestion, the compressing of minds into a machine-made mould with the loss of individuality and the premium it sets on the amenable rather than the intelligent, the stigma that is attached to the mind that is slow in maturing or simply not bookish," these are the immediate effects, not so much of the examination system *per se*, but of the conditions which make such a system a necessity.

RESEARCH

We have dealt so far with the teaching and training carried on in the universities, but this is not their only function. Research is the other highly important purpose of the universities, for it is their proud boast that within their walls are concentrated the essence of the intellectual and scientific ability of the present day. According to prevailing standards, it is those with the best brains and the greatest ability who reach the posts of highest distinction in the universities, and who carry on the teaching and research work. Further, a number of young men and women who have reached a high standard in their student careers obtain university teaching and research posts of a permanent or temporary nature. This is the most valuable part of the capital of the universities, to which must be added the facilities offered for study and research, the libraries and technical apparatus, as well as access to all possible sources of information.

In both of the main activities of teaching and research the universities have ample opportunities to bring the ability concentrated within their walls to bear on the problems of present-day society. In their training of students they are responsible for the type of knowledge and to a large extent for the mental attitudes of the graduates they turn out, who will in time hold key positions in the community. They are also necessarily the pre-eminent centres of study and research.

It is with this latter function that we are now concerned. An assessment of the value of university research is, however, complicated by lack of information, as it is exceedingly difficult to find out the extent of such research from published figures, but one thing is immediately apparent, and that is the lopsidedness of the research undertaken. For instance the amount of money spent on research into what may generally be called the social sciences is disproportionately smaller than that which is spent on scientific research work of one kind or another.

One of the striking features of university research is the very small extent of co-ordinated planning. Looked at as a whole, it appears to consist of a more or less chaotic

conglomeration of various individual activities with no clearly defined purpose or aim, an essentially individualistic affair, where this or that specialist probes deeper into his own specialization with little concern for the activities of his fellow research workers.

There appears to be little conception of the potentialities of co-ordinated research directed to clearly defined social ends, and the absence of planning means that such research as is carried on is necessarily only of spasmodic and uneven value. It must depend rather on the brilliance of isolated individuals than on the proficiency and effectiveness of a team or group working together or on related subjects.

In the arts subjects research work tends to degenerate into the most erudite and academic refinements of particular specialisms. In the first place the tradition and the professed ideals of the arts faculties militate in this direction, but in addition promotion in the academic world depends largely on the degree of proficiency in "scholarship" shown by the various candidates. However, it is in the realm of the social sciences that research is more vital and it is here that the record of the universities is truly déplorable.

Let us examine, for instance, educational research. In spite of the fact that almost every university maintains an education department, staffed with professors and teachers, the original contributions made by the universities to the science of education are very few and far between. Despite the fact that they have access to experimental material on every side, the universities carry on almost no experimental work. One university until recently owned its own school in which it could undertake such work, but even this university made almost no use of the school for these purposes. If there is one science about which our knowledge can be said with certainty to be extremely limited, it is that of the growth and development of the child, and yet the universities provide no centre for directing and planning such work in a rational manner.

It may be asserted in their defence that the staff of the education departments have little time to spare from their teaching duties, a fact which is partially true. But this argument merely exposes the faults of a system which starves the education departments financially and does not provide

sufficient staff to carry on the educational research which is as vital to the future of the universities as to society as a whole.

Nor is the position much improved when we come to consider, for instance, the problem of health. With the honourable exception of a few outstanding individuals, the universities cannot claim to evince any great interest in the well-being of the people. Surely it is in the universities that the problems of normal health should be discussed and researched into, it is in the universities that the question of the best possible organization of the health services should be investigated. Particularly should the medical schools be in the closest touch with the outside world, so that they can learn about conditions of life and work, and the effect of these conditions on health, instituting research, and making suggestions and proposals which will tend to the general improvement of health facilities and living conditions, and therefore of general standards of health. Yet how little is done in the universities compared to the obvious and urgent possibilities. Here again the fault seems to lie not so much in the personnel of the research and teaching staffs, who are often hampered by their conditions, but in the whole conception of the function of the universities, which limits their opportunities and destroys their initiative.

The list could be continued indefinitely. Town planning, housing, conditions of work, the organization of the production and distribution of goods, these and many other problems of vital concern appear to be largely ignored by the universities. It is true that here and there, in small departments at a few universities or colleges, one or more of these subjects may be the subject of research, even of planned and co-ordinated research. Outstanding examples of this have been the work of the department of social biology at the London School of Economics which was organized by Professor Hogben, and which *inter alia* produced the recently published *Political Arithmetic*, researches of a fundamental character into the structure of society. Another example is that of the Economics Research Department at Manchester, unfortunately disrupted by the war, which largely concerned itself with problems of employment and of the cotton industry in Lancashire. Again

the research into the standard of living at Bristol, in which students, research students and teachers took part, and which necessitated the observation of actual living conditions, is another example of what might be done.

However, in face of the great need that exists, and the tremendous potentialities for such work, the research undertaken is almost negligible in amount. This at least is the conclusion concerning the social sciences.

In the case of scientific research the position is broadly similar, although affected by other factors. The inadequate extent to which such research is financed and organized has been brilliantly described "from the inside" by Professor Bernal in *The Social Function of Science*, and the reader is referred to this book for a detailed account of what is shown to be an exceedingly depressing situation. Professor Bernal shows how lack of organization and lack of finance cripple scientific research, and how it is directed not so much to meeting outstanding social needs as the needs of the industrialists who bear a considerable part of the cost.

CHAPTER VII

STUDENT LIFE ¹

THE fact that university education does not consist entirely in the time spent in the lecture-rooms and laboratories is stressed in many speeches and books on university life. The social and intellectual life of the students themselves is considered in this country to be an integral part of university education, one that, in theory at least, has an important part to play in forming the character and broadening the outlook of the students.

¹ The conditions described in this chapter were those prior to the outbreak of war: changes and developments since then are dealt with in Chapter X.

This conception of student life comes, of course, from Oxford and Cambridge, and the emphasis it places on the development of the individual himself should be noted. It will be remembered that Cardinal Newman felt this to be the most valuable side of university education, and ever since his time its educational value has been stressed:

It is true that the characteristics which this life is said to foster are computed variously by different authorities. Jowett, for instance, spoke of the resulting "improvements of character," a vague phrase which he clarifies by a further definition. "The benefits of a university education cannot be thought to consist merely in the acquirement of knowledge, but in the opportunities of society and of forming friends; in short in the experience of life gained by it, and the consequent improvement in character. The great charm of universities which gives them such a hold on after life is that they form a society in which mind is brought into contact with mind and there is conversation, and enthusiasm for knowledge and united help in study."

Jowett was speaking, of course, of Oxford and Cambridge, but the same ideas are expressed in Lord Haldane's famous address to the students of Edinburgh: "It is not merely lecture-rooms and laboratories and libraries that are important. The places where those who are busy in the pursuit of different kinds of learning meet and observe each other are hardly less so. The Union, the debating society, the talk with a fellow-pilgrim on the steep and narrow way, the friendship of those who are struggling to maintain a high level—these things all of them go to the making of the scholar."

For Lord Haldane, the word "scholar" had probably a broader meaning than it has since assumed, though to-day very similar remarks are made about social life in the modern universities. The emphasis has changed, however, and "student activities" are now invoked mainly to counteract the specialism of university education. It is noticeable that the ideals put forward remain vague and abstract.

J. I. O. Masson, Vice-Chancellor of Sheffield University, separates university education into two separate parts, first *professional learning*, and secondly, *independent* of the first, the ability to understand and appreciate other human beings.

He assigns the whole of the second sphere to student activities: "There is the other kind of knowledge which, although it is not mentioned by the titles of degrees, has to be gained; and by it the whole university and its individual members come to be judged, in the world outside, almost as much as on the ground of research, scholarship and professional prowess; that is, the knowledge that gives what the physical chemists are fond of calling 'miscibility.' You cannot get what the university has to offer you, nor can the university get what you have to offer it, if your three or four or five years here are only work, meals and sleep. When you eventually go out into the world, your professional learning will be of very little use to you, or anyone else, if you have not meanwhile become, independently of it and along with it, a human being able to understand that other people have interests and ideas other than yours—and to understand it by experience, not merely by hearsay. This is where a work of tremendous corporate and individual worth is done, in a good university, by what are generically termed 'student activities.'"

If Mr Masson asks that student activities should make intellectual men into "human beings," Sir William Beveridge assigns them a similar and equally important function. They should turn the specialist into an "all-round man," one who understands "all or many sides of life." Here again the inadequacy for this purpose of the "formal" side of university education is stressed, and the responsibility is transferred to the student activities: "A student who is to get the full advantage of his few invaluable years here, must not be content to confine himself to the narrow path of attending compulsory lectures and reading set books; he must make himself what every university-trained person should be—a person to some extent of general ability, an all-round man, or, as Aristotle puts it, a man four square and flawless. There is a danger in these days of specialism that the meaning of university education should be misunderstood. Study of one subject or range of subjects does not amount to a university education merely because it is difficult, or takes many years to accomplish. . . . Such an education means something different from specialism: it implies the capacity to understand all or many sides of life, and life is not made up of books and learning, nor are all books

economic ones. In a school which, like our own, has in itself a tendency to specialism, the function of a Students' Union is doubly important. It can and must supplement lectures by debates, books by athletics, and economics by art and literature."

These last quotations show that student activities in the modern universities have assumed, in the eyes of the authorities at least, a far greater significance than they ever had in the past. Debates, athletics, and discussions among the students must develop the qualities graduates are expected to possess, and, although these qualities are very vaguely defined, enough has been said to show the vitally important part student activities are expected to play. The opinions quoted implicitly support the analysis of the "formal" side of university education made in this book. It is important at this stage to see how far these activities are effective in counteracting the evils of specialization and also what is the attitude of the authorities in practice as well as in theory to student activities.

What do "student activities" consist of in the modern universities? They consist both of the informal discussions and activities which inevitably take place when large numbers of people are gathered together, and of the organized activities in the various societies controlled by the students. For our purpose at the moment it is the second form of activity which is the more important.

It is extraordinarily difficult to give a balanced description of the social life in the universities, difficult because over the last few years the university scene has been shifting swiftly, almost dramatically, so that conditions existing even two, three, or four years ago are no longer valid. There are, therefore, many divergent tendencies. Since the pervading influence of the universities is the encouragement of professional skill of one kind or another, social life is naturally affected by the efforts to concentrate the attention of the students on this one subject. On the other hand, under the impact of the political and social events of the last few years, and particularly of the war, more and more students are deliberately rejecting this aim, and reaching a new understanding of the purpose of culture and knowledge. In between

these two extremes the majority of the students, perhaps bewildered by their experience and knowledge, but still unprejudiced and more or less profoundly dissatisfied with the present state of affairs both inside and outside the universities, are becoming more and more aware of the relation of their field of work to that of social and political events.

The best way of dealing with what is, therefore, a complex situation, is to describe the existing trends separately, and so seek to find the significance and more important causes of each. Such a course can be followed without damaging the essential picture, since the relation between the different trends can be easily seen.

We need not spend long on a general description of the activities of the student societies. In most of the modern universities they exist in large numbers, and, in theory at least, they cater for almost every conceivable interest. There are political and religious societies, cultural and "departmental" societies (*e.g.* science, medical, English, German), dramatic societies, debating clubs, athletic and rambling clubs, and so on. Each university can boast of thirty or forty such societies, with their chairmen and committees. Between them they make up the organized student activities in the universities. There is no need to describe these societies in detail. Generally they follow certain well-defined patterns and function very similarly in the different universities.

Most students will belong to one or two of these societies, sometimes more, although the extent to which they participate in their activities is another matter.

The departmental societies usually exist parallel to the various university departments, and their function is mainly to arrange discussions and lectures on certain aspects of the relevant subject. The staff often take a considerable part in the running of these societies, whose meetings are usually well attended by the students. In the main the activities of these societies consist of lectures given by the staff or an outside expert. There has been a tendency on the part of both staff and students to regard these meetings almost as a part of the official university curriculum, or just another opportunity to give or attend a lecture. Their programmes,

therefore, often tend to be unimaginative, and to concentrate on the more esoteric and abstruse aspects of the official curriculum. Where this happens such societies cannot be said to play any particular rôle in student activities, since they act rather as an adjunct to the official syllabus, the students attending in the hopes of learning something useful for their degree.

A new conception of the function of departmental societies is, however, growing in the universities. They are beginning to be seen more as opportunities for providing discussion on those aspects of a subject which are not dealt with in the official curricula. As yet, however, this is only a beginning; but we may note in the meantime that these societies provide the best opportunities for organized discussion among the students about their subjects, and for some contact of a more informal type between staff and students.

Various societies also exist for political discussion and activity. Most of these are also propagandist bodies, while others exist for discussion of political or international matters. The avowedly propagandist bodies, such as the Conservative, Liberal, and Socialist societies, provide at the same time a social and intellectual life for their members. These societies arrange the usual lectures and discussions, and carry on their various campaigns within the universities. They tend in some cases to separate themselves off from the main body of the students, so that their influence and contact is restricted, but on the whole form an energetic and lively section of the university population—a minority which is conscious of events and happenings outside the limited sphere of the university itself. By far the most active of the political societies are the various branches of the University Labour Federation. Fascist societies no longer exist, while the hold of the Conservatives and Liberals over the student mind seems to be small outside of Oxford and Cambridge.

Most universities can boast of some form of society for the discussion of international affairs. These vary in effectiveness; in general they follow the normal pattern, providing a series of lectures by outside experts during succeeding terms.

Religious societies include branches of the Student Christian

Movement, the Evangelical Christian Union, Roman Catholic societies, and so on. These, besides providing for the religious life of their members, act also as a social and intellectual nucleus. The S.C.M. is by far the best organized of these societies, maintaining a very large staff at its national headquarters, and numbers of graduate "travelling secretaries" throughout the universities. It develops a fairly strong social life among its own members, running a number of discussion groups and other activities in the various universities. Here again there is a very definite tendency for the members to separate themselves off from the rest of the student community.

A central point for the discussion of political, social, and moral problems is provided in most universities by the debating societies, organized generally by the student unions. These attract fifteen to twenty per cent. of the students, the majority of whom are active in one or more other societies, and provide a useful introduction to extra-academic affairs for those who might otherwise neglect them.

Other student organizations can be classified under the general heading of "cultural" societies. These are dramatic clubs, music societies, and so on, of which every university has its share. They provide a centre for those interested in these activities, and arrange at intervals dramatic performances and concerts. They do not play a very important part, although they sometimes provide quite an intense social life for their members.

Finally there are a varied assortment of societies and activities which are impossible to classify. Such, for instance, are the rambling clubs and photographic societies. Social activities include the many informal dances or "hops" held on Saturday evenings, easily the most popular form of "student activity," and last, but not least, the annual "rags" or "pantos," when nearly all the student body turns out on the streets and, attired in strange costumes, forces money from all and sundry for the local hospitals. The one occasion, it is said, when the majority of the students are united in a common aim.

By far the most powerful of all the organizations are the various student unions, undergraduates' guilds, or student

representative councils. These are the democratic organizations of the students, whose officials are elected from among the student body, and whose purpose is to represent the students, guard their interests, and promote the social and cultural life of the university. In most universities and colleges each student automatically becomes a member on matriculating, and pays an annual fee of between £2 and £3 to the union.

In the past, student unions have mainly concerned themselves with administrative problems. In recent years, however, they have increasingly taken their place as the leading body of the students, exercising a general oversight on student affairs, actively taking up the interests of students, and concerning themselves far more with the wider problems of both the students and the universities. The student unions control the union buildings which exist in most universities, and are federated nationally in the National Union of Students. The student union locally and the N.U.S. nationally are increasingly becoming the recognized means of expression of the whole student body, vitally concerned with such questions as university reform, the promotion of education and discussion work, the defence of the universities and the maintenance of freedom of discussion, as well as many other matters of interest to the students of the country.

Certain general conclusions can be drawn from this brief summary of student activities. There is a tendency for the student body to separate into sections having similar interests or ideals, and revolving round the various societies. In addition medical students and engineers, particularly the former, tend to be very exclusive and take little part in general student life. These divisions among the students are very real and are noticeable in all the universities; there is little mixing between people with different ideas and attitudes to life. With few exceptions the student societies gather round themselves people who approve of their particular purpose, whether it be educational, cultural, religious, or political, and hardly any societies exist for the purpose of discussion between those with different interests or points of view. There is a very definite tendency, therefore, for the student body to separate itself into a series of cliques, cut off from the main

body of the students, which lead a contented, if narrow, life among themselves.

Quite apart from this, the general run of student activities has tended to follow set patterns, and to be, on the whole, rather dull and unimaginative. The typical student society has regarded as its main function the provision of lectures, with perhaps one or two "socials" thrown in, and there has been little contact with the people outside the university. This has been true not only of the departmental societies, but also of those few societies directly concerned with social affairs. It is no doubt partly for this reason that many student societies consist only of the chairman and committee members, with perhaps a few stalwarts who attend regularly. The haphazard nature of student activities has also been responsible, there being little conscious planning, or generally accepted aim of student activity as a whole, and societies have been apt to rise and fall in popularity according to the energy and ability of one or two people.

Recently, however, the new conception of the purpose of student activity which has been gaining ground among the student body has begun to have a considerable effect in bringing life and vitality into the social and intellectual life of the students. Students' activities are being planned with a more conscious purpose, and the vital part that they, and they alone, can play in the life and development of the universities is becoming more generally recognized. In accordance with the extent to which this is being done they are meeting with more success and enriching the life of the universities.

In general, however, the social life of a university has been run by a small nucleus of active students supported by a larger group who depend upon them for leadership. Most students are members of one society or another, nearly always of some departmental society, but any student officer was, up to the outbreak of war, prepared to talk at length about the general "apathy" of the student body, and of the difficulty of getting them to take part in activities. Generally it has been true to say that rather less than 25 per cent. of the students have been active in student affairs. The report of the 1939 Congress of the N.U.S. states: "In a university of

about 2000 students, only about 300 could be said to take a real interest and an active part in student activities. This proportion was generally agreed to reflect the position in most of the universities and colleges in this country." Since the war, however, the position has been improved considerably.

In each university certain societies are, of course, more successful than others. It is significant that the two most successful are nearly always the Socialist Club and the Student Christian Movement. Perhaps this is because in their very nature these have something more comprehensive to offer than the ordinary run of student societies. In addition, the union debates in the provincial universities are consistently popular, and the dramatic or musical society may have occasional revivals. In all cases, however, the same situation has been apparent: only a small proportion of the students have been actively interested in the social life of the university, and in general those who have given their allegiance to one society confined themselves to that society alone. It is easy to see the gap that exists between this situation and the conception of student activities as put forward by Sir William Beveridge and Mr Masson.

The immediate cause of the apathy of the students must be traced to the general attitude and interests of the student body as a whole. It is difficult to make generalizations covering so varied a body as the student population in the modern universities; nevertheless some attempt can be made.

While on the one hand there have been unmistakable signs of a general quickening of interest and awareness in the universities, a trend which is dealt with later, on the other hand there has for long been a definite lack of curiosity and a certain intellectual deadness. What was lacking was that live and eager questioning and discussion on social and cultural questions of concern to every citizen. A true university should be the centre of such discussion and activity.

That the students made little use of their opportunities can be borne out by many examples and student reports. For instance a committee of the Birmingham Guild of Undergraduates, which considered this question in 1938, came to the conclusion that: "The point of crucial importance is that students seem, in too many cases, to be interested in nothing

else than the academic course leading to the degree, leading in turn, it is hoped, to a job." We cannot do better here than to quote from an article which appeared in a student news-sheet some years ago, and which is typical of articles appearing from time to time in almost every student magazine or news-sheet in the country. Admittedly the situation has changed since it was written, but what the author says is still true of a certain section of the student population.

Under the terse title "What kind of a College is this anyway?" the writer asks: "Have you ever found yourself asking this question? Perhaps you are one of those people who never ask anything really worth while. If people do think, however, I am certain that they must inevitably find themselves confronted by this as well as other similar questions. When governments pile up armaments does it anger you or are you pleased about it? Perhaps you are like most of the students one meets in this college, you never think at all about that kind of thing. When Roosevelt was elected in America a week or two ago by an overwhelming majority did you ask yourself why this was or what effect it might have, or did you not know there was such a man and such a country? When General Franco threatens the Government of Spain do you ask yourself what might happen if the Government were overthrown? When you read (if you do read) of revolutions in Japan or China and elsewhere, do you try to understand the causes and the probable results?

"I could go on asking countless such questions. But enough. What I want to ask you is: What does interest you in life? Billiards? Do you enjoy sitting hour after hour drinking beer? Do you spend your time playing cards or do you spend it only in the library? Maybe you 'just sits.' That's what many people seem to do here. Why are public lectures and society meetings so badly attended? Surely there are societies in college to cater for every possible kind of interest. I do not think it is the societies which are at fault but the students. One of the most striking things in this college is the sheer indifference to almost anything outside of lectures and labs."

Such was the position as put by a student in a mood of righteous indignation, and while, contrary to his opinion, the

blame does not rest with the student so much as with his environment, which to a large extent conditions his response, yet there is no doubt that there has been a large measure of truth in the description.

It is the enforced concentration on the degree, the resulting "sheer indifference" to anything outside labs and lectures, that has largely conditioned the character of the social and intellectual life of the universities. From this naturally follows the passivity and the lack of curiosity. This is shown also by many personal attitudes; by a certain superficiality of personal relationships, which is only natural when such relationships cannot be based on anything deep and lasting; by a lackadaisical and passive attitude to the world in general, an attitude of acceptance of whatever the future may bring, rather than one of consciously contributing to the development of society.

All this has brought a barrenness into the life of the university, something the very opposite of what the universities should be. This cultural barrenness is vividly reflected in the way in which public discussion of one's particular subject over the hostel dinner-table or in the Union is often resented. The clash of mind between the youthful scientist, engineer, theologian, and historian has been a very rare occurrence in the modern universities.

Although a rapid change is now taking place in student life at the universities, this is a fair if somewhat generalized description of the effects the modern universities have on the majority of students.

It is perhaps difficult to recognize the intense social and economic pressure exerted on the university student from the moment when he first matriculates. Under the present system the universities provide a stepping-stone in the social scale, one that is nominally accessible, owing to the scholarship system, to almost all classes of the population; its value is maintained as a result of the extreme limitations imposed upon its accessibility. It is this aspect of a university career that gives it much of its value in the eyes of intending students and of their parents and relatives, for it provides means of entry to important positions or lucrative jobs, with as a ticket of passage, the degree.

This factor, of course, operates with different intensity upon different students. It certainly affects considerably a high proportion of modern university students, many of whom come from the public elementary schools, and have had to take examinations from the age of eleven up, each one of which is vital from the point of view of his future employment and his future status. The necessity of doing well in examinations has therefore been dinned into him for years past by parents, teachers, relatives, and all concerned for his future career. Such people fully understand the importance of the degree, and it is not surprising that these students should concentrate their attention on this one aim, and neglect anything which does not serve this immediate purpose.

So far only the bare outlines of the "unique" scholarship system of this country have been described. A further study of the social effects of this system throws more light on the state of mind of the student. The scholarship system is a process of selection, of creaming off a small and carefully selected group of children from their social origins. This must be a more or less violent process according to the characters of its victims, for it entails the separation of these children from their class origin. It means that those who are successful in school examinations have to break their bonds with the milieu in which they were born and brought up, and, as far as possible, forge new bonds of a very different type and character.

This process entails certain attitudes of mind on the part of the student, for it implies a tacit acceptance, at an age before critical faculties can be brought to bear, of a social morality which holds that to rise in the social scale is in itself desirable. The social and economic pressure exerted during this process is likely to induce gradually a conscious acceptance of this ideal. To this fact may be attributed some of the passivity and lack of scepticism, some of that unquestioning acceptance of present values and present conditions, which has been noted. For an inquiring mind does not always lead to comfortable conclusions. In many cases it is easier to keep a closed mind and to enjoy such fruits as the world may offer, than to risk what has been won in such a struggle.

Of course there are many students who are able to free

themselves from this pressure and look about them with an easier mind. But the dominating influence of current social values, combined with the student's peculiar position in society, is such that the former state of mind is the more usual. So much for the scholarship system. Much could be said of the obvious bewilderment which often accompanies the breaking of social bonds, as well as of the tendency for the system to favour those with the particular qualities of docility and passivity but there is unfortunately no space to examine these refinements of the selective process.

The education received during the last years at school also plays a large part in determining the student's attitude at the university. The narrow specialization in these years is becoming increasingly recognized as a serious defect. The state of mind in which many students come to the university has been well described in a report produced recently by a Students Union which says: "Very many of our students come up on grants and scholarships. In school they have been made to work far too hard to gain these scholarships—urged on all the time by the bait of a university education held out before them. Finally when they do achieve their object the habit of unintelligent swotting has become so firmly engrained in them that they are incapable of abandoning it, and are therefore unable fully to utilize the cultural opportunities which the university offers."

That is the position in a nutshell. University scholarships and other grants to the universities often entail a high standard and intense specialization at an early age. The cramming for these scholarships at most secondary schools is a well-known evil. It is this cramming, combined with the economic and social pressure which we have already remarked, that makes the taking of a scholarship an examination grind which dulls the initiative and intellectual independence of the pupils. In this way the stage is set for the university career.

It has already been made clear that the student is subject to similar influences at the university itself. The excessive use of the lecture system can only be described as a thought-deadening process. The isolated specialization of the curriculum itself tends to put the student into blinkers, and does not rouse his curiosity and interest in matters outside

the actual academic course, while he finds no excitement in the culture he is offered unless he is able to adapt himself to the ideals of the "scholar" or unless he takes a pride in a particular skill. In neither case will any of the vital questions which concern him be answered or even touched on. His learning will, therefore, be something outside his real life, and if the student accepts this situation his reactions may take various forms. Sometimes it is one simply of disillusion or bewilderment, but more usually the student relapses into a philistine attitude to learning, holding that since the subject must be studied he will go through with it, or the student may become the bookworm "university" type of scholar delving deeper and deeper into the intricacies of a particular specialism, and shutting out anything which appears irrelevant to his limited and narrowing ambition.

Alternatively the student may revolt against the values of present-day society as expressed in the university course which is moulding him to take his appointed place. Nor is it difficult to understand why this should be so. The young man or woman at the university is a member of a society which is passing through a tremendous crisis. As a member of that society his own life, his own future, is intimately bound up with its future. Its problems and crises are his problems. It is not surprising, therefore, that when the university preaches the gospel of knowledge for its own sake, when it shows no interest in the solutions to the world's problems but offers instead the sterile ideal of scholarship, the student is moved to protest.

A factor which has contributed to the awakening of the student or has conversely been the cause of even greater concentration on the sole object of gaining a good degree has been the unsatisfactory employment position in recent years. This has brought both fear and anxiety about the future, and also a further understanding of the structure of society and the place of the student in society. To take for instance students in university training departments who have accepted the Board of Education grant for intending teachers. Before the war only 25 per cent. of these students succeeded in getting posts in secondary schools, with the higher income and social prestige than the elementary schools can offer.

The competition was therefore intense, particularly as a number of students had to wait a year or more before getting employment at all. The risk of not getting a good job meant a gnawing fear which has the effect of stultifying life at the university.

It was not so much a question of unemployment, for most graduates could get a job of one kind or another. It was more usually a question of getting a better job rather than a worse one. But whatever it was we cannot wonder that the student often felt that he had to make a choice, a choice between working for as good a degree as possible, or of educating himself and participating in a wide range of activities. Nor can we wonder that, consciously or unconsciously, the former was chosen more frequently than the latter. For every moment that might be used in working for a degree, which was spent in some other activity, might make a difference of a class in the degree obtained. And so we see how this situation affects university education, stultifying it and directing it not towards the development of the abilities of the individual so much as to increasing his value in the scale of the country's market.

Another potent influence forcing the student to keep his eyes firmly fixed on the matter in hand is the overcrowding of the curriculum, which leads to a certain rigidity of organization, and a general atmosphere of rush and hurry which is very noticeable in the universities. This atmosphere is to a certain extent the inevitable corollary of the conditions under which most of the modern universities have to operate. One of the main features distinguishing nearly all the modern universities from Oxford and Cambridge is that they are largely non-residential. About 50 per cent. of the students live at home, and another 30 per cent. in lodgings usually scattered in various parts of the university town. Only 20 per cent. live in hostels, which are usually, not always, situated near the university.

For this reason the university "hours" are very circumscribed. Most students arrive at about 9 A.M. for their various lectures and laboratories, while at 5 P.M. the general exodus from the universities starts, and nearly all the students find their way home by bus, train, or Tube. Some have long

distances to travel, others not so far, but except when there is an occasional society meeting, or a dance, most universities and Union buildings will be found silent and empty after about 5 P.M., except for a few people reading newspapers or talking.

The shortness of the hours during which the university functions contributes its share to the general atmosphere of rush and hurry that is so noticeable. The number of lectures and laboratories that the student has to go to, combined with such society meetings as he takes part in, means that the student often has to live in a constant whirl of activity, much of which tends to be compulsory. At such-and-such an hour he has to be at this lecture, at that lab. He is pushed about from place to place during the hours between travelling to and from the university. There is little wonder that the student often leaves the university mentally more jaded, bruised, and battered than would be the case if he had the time and leisure to develop his own capabilities according to his own interests. In the words of the proverb: "Wisdom cometh by opportunity of leisure and he that hath little business shall become wise." It is partly because this "opportunity of leisure" is too often lacking in the university environment that many of those who work in this atmosphere are reduced to a level of unconscious conformity.

The place of residence of the student affects his life at the university in several ways. Many students live at a considerable distance from the university, and some have to travel as much as two hours each way. Many more have to travel about one hour. Thus their day is filled up in a way that must detract considerably from the value of a university career. An inquiry made at Leeds University among 97 students living more than three-quarters of an hour from the university reports that they have "in most cases strong feelings as to the disadvantages of excessive travelling, *e.g.* fatiguing, uncomfortable, expensive, monotonous, bad effect on health, and, most important of all, the time wasted." Most of these students would prefer to live in a hostel, but accommodation is limited and considerably more expensive. Such conditions must affect adversely the life of the student.

The student who lives at home is subject to many influences

from which the student who lives in lodgings or hostel is more able to free himself. He is often the only one of a family to reach the university, and his interests and activities tend to become increasingly differentiated from those of the rest of his family. He may, therefore, develop conflicting loyalties leading to a separation or schism between his life at the university and his life at home. Close family ties mean that home influences tend to get the upper hand, and the student finds it difficult to break away from the family environment to the extent which is necessary for his own development. This is an added force making the student regard the university in much the same light as the secondary school, attending the necessary labs and lectures, and returning at the earliest opportunity to spend the evening at home. When the student has many social commitments in his own locality, as is very often the case, the strength of this factor is heightened. The student who lives in lodgings or hostel naturally finds it easier to break away from home ties.

There is not room, in so short a book as this, to devote more than a small space to university hostels. Their advantage lies in the fact that they provide an opportunity for a corporate life among the students which is not otherwise easy to obtain. How effective they are depends on a variety of circumstances which can only be touched on here, but it is necessary at the outset to sound a note of warning. There is a tendency in university circles to believe that if more students could be accommodated in hostels their difficulties would be over. Nothing could be further from the truth. Experience goes to show that the building of hostels is not a panacea which at one stroke will solve all the problems which beset the modern universities.

At those universities or colleges where a high proportion of the students live in hostels there is little evidence that the personality of the student is better developed than elsewhere. Nor should we expect the fact of residence in a hostel for two or three years to break down attitudes which have their roots deep in society. The environment in which the student lives and works is naturally an important educational influence. Some hostels are undoubtedly pleasant places to live in, especially those which have been recently built. But in fact

university hostels, especially those for men students, too often give an impression of bleakness, dreariness, and discomfort which could easily be avoided if the importance of an attractive environment were fully recognized. The rooms frequently tend to be harsh and bare, and are furnished with a simplicity which is almost overwhelming.

Other factors affecting life in a university hostel are the type and character of the staff living in, and particularly of the warden, and the degree of responsibility afforded to the students. The position of hostel warden is one of the most exacting in the university, and a good warden must have a sympathetic understanding of his students. Many hostel wardens are of this type, but it is not easy to find people with the necessary qualities. In some cases the students are bound in by a number of petty restrictions to an almost ludicrous degree. Hostels, therefore, can in some cases act as a potent educational influence. In others, their effect may be very different.

In this brief survey we have not exhausted by any means the different influences which are brought to bear on the university student. Mention might be made of many other things, particularly the further effects of economic insecurity and poverty that exist among many of the poorer students, especially those who come from depressed areas and other districts where the standard of living is low. It is true to say that a large part of the system of assistance to students is one of "marginal aid," the student lives on the margin, and has sufficient finances only for his immediate necessities. Many examples could be given of how some students are unable to buy books,¹ or even to take part in some of the social and athletic activities of the university, owing to lack of finance. In one college, for instance, many of the students who come down from the mining valleys bring their own sandwiches with them, which they eat at lunch-time in a dingy common-room in the university. They deliberately do not enter the Union because they wish to avoid the tempta-

¹ Report of the Birmingham Guild of Undergraduates: "It is fairly clear that hardly anyone has got much spare money. In particular book-buying is comparatively rare because it is virtually impossible for a large number of students and uncomfortable for most of the rest."

tion of buying themselves a cup of tea or some biscuits. In another college the students in a similar situation eat their lunch in the cloakroom.

Naturally this tends to debar them from taking part in social activities and from mixing with their fellow-students, and is a further cause of division in the student body. But apart from this, when a university career is a constant financial struggle, the very insecurity of the student's economic position is constantly forced upon his attention. In this situation the security of regular-paid employment seems all the more desirable, and makes it seem all the more important that he should direct his energies towards this one goal.

There is a very vivid contrast between the position of these students and that of the comparatively wealthy student of Oxford and Cambridge, whose economic position both at the university and after is secure, and who can therefore afford to educate himself regardless of the pressure of economic conditions.

There are a whole variety of circumstances, therefore, each playing its part in determining the attitude of university students. These vary from the deepest social influences to the realities of the day-to-day life.

The main fact emerging is, however, the tremendous pressure on the student, exercised in innumerable ways and forcing him to concentrate on his degree as the necessary stepping-stone to a career. This is a process which not only allows the student little opportunity to direct his energies into any other channels, but also actually tends to destroy his ability to do so. This accounts for the apathy and sterility which tends to dominate the social life of the student, to force his mind into a common mould, and to turn him loose upon the world often more unadaptable as a member of society than he was when first he entered the university.

At the same time these circumstances have brought about another and very different reaction on the part of some students. Dissatisfied with the life and the culture the university has to offer, many students are building up through their own organizations their own life and cultural and social ideals almost in opposition to those offered by society and the universities. This movement, which is growing rapidly under the impact of war, is profoundly significant, and it is worth

spending some time considering these recent changes in the consciousness and therefore in the activities and social purpose of the student.

The origins of this movement can be traced to the profound economic and social disorganization brought about by the slump of 1931, which, as the years went by, began to affect the previously favoured class of university student directly owing to the contracting possibilities of employment and social advance. While graduate unemployment and mis-employment in this country has never reached the scale that it did on the Continent and in the U.S.A. yet it certainly existed to a considerable extent, and for the first time students found themselves face to face with the hardest of economic realities.

Further the slump was accompanied by a deterioration in international relations, and by the rise of a militant and ruthless fascism in Germany based on an ideology which denied the validity of truth and reason, and which used its power to suppress all progressive and cultural activity in order the more easily to preserve power and prepare for war. The threat to the future so evident in this rise to power and in the successful aggression of the fascist countries had the effect of arousing students to an awareness of their position, and to the threat to their interests and ideals. As the years went by, with the wars in Abyssinia, in Spain, in China, to the climax of Munich, and the present war, it became increasingly clear that the present political and social order had little to offer to young people, students as well as those outside the universities, even if they came from the more privileged sections of the community.

What was at first a small minority of the students were driven to the study of society and to questioning the basis of the present social order in an attempt to find the causes of the world's distress; they began to formulate their own ideals and to plan in what way they could take action to influence events. The question of the rôle of the universities assumed a new significance; what was the function of the universities in this situation? What contribution could they make to the challenge of social disintegration and international disruption? Such were the questions to which the more active students were determined to find an answer.

Political and social interest and activity, therefore, began to grow in an organized way in the universities throughout the nineteen-thirties, and if it flourished to a greater extent at Oxford and Cambridge, where there was more time and opportunity than at the modern universities, it became more and more difficult for the generality of the students to avoid it altogether. The early hunger-marchers who came through the university towns were often welcomed by bodies of students who were beginning to perceive an identity of interest, and who were thus brought into some contact with the people for the first time. In this way the students engaged in a very different type of activity from the strike-breaking of 1926, which was then enthusiastically undertaken by thousands of students.

Some years later the wars in China and Spain, and the rapid growth of fascism in Germany, evoked a wide, popular anti-fascist movement in the universities which began to embrace the majority of the students, and to draw them into social action. Thousands of students were quick to realize that the struggle of the Chinese and Spanish people was their struggle, and that the place of the students was in the forefront of the world-wide struggle against fascism. The so-called "academic neutrality" of the previous decade was increasingly rejected as the necessity for political action became more obviously urgent. This realization was accompanied by much activity in the universities. Considerable sums of money were raised in the British universities to help the Spanish and Chinese peoples. Japanese goods were boycotted, mass meetings were held in protest against the Nazis' treatment of the Jews; considerable assistance was given to refugees from fascist countries. Such activity resulted in the development of the anti-fascist movement, with the result that in this country, unlike Germany, the mass of the students have allied themselves with the forces of progress rather than those of fascism and reaction generally.

At the same time the barriers between the students and the people outside the universities began to be broken down as the identity of interest between the students and other young people became increasingly understood. In 1938 the N.U.S. affiliated to the British Youth Peace Assembly, the British

section of the World Youth Congress Movement, to which were affiliated more than thirty youth organizations, and took part in the Youth Parliament and the Youth Hearing, putting forward an Education Bill in the first, and giving evidence on the conditions of students and the extent of educational opportunity in the second, while the more politically minded students took part in the National Youth Campaign, a wide youth movement in favour of a policy of collective security and social advance. In these ways, and in local activities of a similar type, a minority of the students were beginning to learn something of the problems of youth and of society.

Nor was this social awakening confined to Great Britain. In all parts of the world young people were faced with similar problems and similar issues. The dangers arising on every side led the young people to see the necessity of social action. In conferences and meetings all over the world, in North and South America, in India, in China, and in many other countries, students and youth organizations were beginning to face up to the social issues confronting them. During these ten years a strong feeling of international friendship grew up between the students of different countries. Whatever the issues which brought the students together, the ideal which they all had in common was the building of a better society where the student could use his capabilities to the full in the interests of the people as a whole. The building of a society which was not constantly menaced by wars and crises, but which in its peaceful development would create the necessary conditions for raising the standard of living and the cultural development of the mass of the people. This spirit of international co-operation was supported and stimulated by student delegations to different countries and by international conferences such as those organized by the World Youth Congress and the World Student Association.

In Great Britain the growing sense of responsibility among the students expressed itself not only in direct political action, of one kind or another, but also in the increased interest in political, social, and cultural questions of all kinds. The affairs of the world beyond began to be brought into the discussions and activities of the students and the more

conscious minority began to discuss these problems in the various societies.

These activities naturally brought a greater interest and vitality into student life at the universities, even if, outside Oxford and Cambridge, the growth tended to be gradual. In the modern universities, university and educational questions as well as political matters began to receive increasing attention. The impact of graduate unemployment had first raised the question of the rôle of the universities, and it is significant that the first annual Congress of N.U.S. which was concerned with university questions was held on that subject in 1937. From that time on the various student unions and the N.U.S. nationally have increasingly taken up the question of the changing of the universities, and such questions as the lecture system, curricula, hostels, entrance to the universities, finance, democracy in the universities have been the subjects of many investigations and reports by the student unions, and have in one form or another provided the subject matter of the annual N.U.S. congresses.

Thus these years have seen a growth in the influence and activities of the student unions and the N.U.S., which has more and more become the leading body of the students, while they have at the same time seen the growth of a new life and purpose in the universities. Up to the outbreak of war this growth was steady and gradual and was already having its effect on the majority of the students. Since the war the pace has, of course, been more rapid, but the developments since then form the subject of a later chapter.

CHAPTER VIII

THE FUNCTION OF THE UNIVERSITIES

WHAT is the function of the universities in present-day society? In the course of the analyses made in the preceding chapters different conceptions of the purpose of a university education have come to light. There is, for instance, a prevalent conception of the universities as institutions which remain apart from the world, and are the more admirable the "purer" the

knowledge which they impart. The university, it is variously claimed, produces the "exact scholar," turns out the all-round man, trains the specialist, supplies "that first-rate professional service on which the welfare of the nation and Empire depends." How far are these claims justified?

In the first place it has been shown that the universities, far from being centres of knowledge and culture withdrawn from the bustle of everyday life, are on the contrary closely related to the social process and owe their inception and development to social rather than educational forces. The modern university movement was conditioned by the rise of the middle class to power, and the modern universities to-day are an important unit in the present social structure. Similarly the ancient universities were adapted to the new conditions. The effect of the social and cultural movements in history, of the movements which accompanied the Renaissance, the Reformation, and the Puritan revolution, has been partially to secularize education and gradually to bring it into line with the new needs and aspirations of a capitalist society. The history of the founding of the modern universities in the nineteenth century shows particularly clearly the revolt of the factory-owning class against clericalism, which for them was identified with the feudalism they had united to overthrow, and shows also the aspirations of this new class in the qualities which they in turn demanded of a higher education.

The various university colleges were set up to train technicians and scientists for the industries of the locality in which they were situated. Later these colleges expanded and were accorded a university status, because "in case after case . . . business was being lost to this country by the deficiency of our people in the use of science," because the Empire needed colonial administrators, the government machinery at home must be fed with civil servants, the professions demanded new recruits.

Similarly changes took place in the schools. New public schools were founded to fulfil special tasks, for instance Haileybury to provide recruits for the Indian Civil Service, Wellington to provide officers for the army, and other schools for special sections of the professional classes. Meantime there was a slow adaptation of the public-school curriculum

to meet the demand for a more scientific education as opposed to the classical and academic tradition. These changes reflected the fact that the "aristocracy" was becoming increasingly identified with business and that middle-class ideals were becoming predominant.

But this expansion of the public schools was not enough; it was no longer possible to restrict education to the privileged few. The increasing complexity of modern society made it necessary to recruit to the professions and to administrative occupations a section of the working population. A state system of secondary education was initiated and a system of recruitment from these schools to the universities evolved.

This system, with its complexities and restrictions, has been described. Its purpose was not so much to make education available to the mass of the people as to provide an academic training to fit working-class children to fill the ranks of the growing body of administrative workers. Just so many and no more of the children of the working class were separated from their environment and trained to take a step higher in the social scale. That this conception is not a thing of the past is shown by the inequalities and restrictions which still exist and by the fact that a university education has never been available in this country to more than about two per cent. of a particular age group. The largest number of students ever to attend British universities was 50,000 in 1932.

The morality which allows the acceptance of this state of affairs is one which places the possession of worldly wealth higher than integrity and ability. The class structure of modern society is reflected within the university system itself in the dividing line existing between Oxford and Cambridge and the modern universities; the former having the facilities and the prestige which enable their students, always provided they have the necessary adjunct of money, to reach positions of power and privilege, and the latter limited to the bare necessities for the production of efficient technicians and professional workers.

The universities, standing as they do at the summit of the educational system, reflect clearly its ultimate intention and purpose. There is, it is true, universal and compulsory education for every child in this country, but the educational

system, in spite of all reforms, remains fundamentally a system designed to turn out recruits for the different strata of a class society. As such it reflects the belief that the present order is just and unchangeable and is the most powerful weapon in the hands of the ruling class. Just as in the Middle Ages the Church had the monopoly of centres of learning, and turned all knowledge to its own ends, burying or ignoring new discoveries in accordance with its own interests, so to-day higher education is the preserve of the few and is turned to the end of extending and protecting the power of the established order.

An examination of the system in practice at the university and of the methods of instruction used serves to emphasize this conclusion. In the first place the inequality of opportunity in an educational system favouring wealth rather than ability persists within the universities. This conditions both the student's choice of career and his life and work at the university. Apart from this social factor, the theory and practice of education as applied by his teachers directs the student's energies into certain well-defined channels.

The student is taught facts rather than helped to develop his own abilities ; he must dissect knowledge rather than turn his attention to the discovery of new potentialities. What he learns is classified either as necessary to his future profession or else as a cultured "accomplishment" which will enrich his character. In either case it is divided and subdivided into arbitrary sections and compartments.

Thus there is no apparent relation between his knowledge and that of his fellow-student in another faculty. Still less does his learning appear related to the problems of society. His training is planned to give him the specified amount of the kind of knowledge necessary to obtain a degree and so qualify for a career. The planning of the curricula, the methods of teaching, the kind of examinations with which his university career is punctuated, all tend to dull intellect and ability, to stifle critical faculties and to force the student to adopt set methods of work and a conventional attitude to life. This process leaves little time or inclination for the social and intellectual activities which should be an integral part of university life.

The separation between work and life which results from a divorce between knowledge and action is a feature not only of the universities but of society as a whole. For the student studying at the university to-day there is no unifying purpose, no aim worthy of achievement, beyond the immediate aim of attaining a degree, or the less tangible aim of becoming a cultured "gentleman"; there is little incentive to active citizenship and enlightened living, because the knowledge acquired at the university has no relation to life.

This attempt on the part of the universities to withdraw from the social process is justified by a number of theories of which the outstanding one is that of "academic neutrality." The pretension to "academic neutrality" accords with the predominating ideal of "pure knowledge" and the frequently repeated assertion that the universities are concerned with the investigation of "abstract" subjects, uncontaminated with any use-value.

The University Grants Committee, for instance, holds that the two functions of the university are to produce "exact scholars" and to train "educated men of the world." Dr Nicholas Murray Butler, president of Columbia University, has even gone so far as to say that "a university exists for the pursuit of truth. Students are only incidental"; or again, to take an example nearer home, the vice-chancellor of Oxford University, when banning the Oxford Labour Club shortly after the last war, gave as his reason "that he wished the junior members of the university to concentrate on the purpose for which they came to Oxford, namely the study of abstract principles."

These then are the functions which according to many authorities the universities should fulfil. Leaving aside for the moment the question of the adequacy of their analysis, let us examine how the universities attempt to put these theories into practice and with what success. To have resided for a specified number of years at Oxford or Cambridge in an atmosphere of ease and security is to be accepted in our present society as an "educated man of the world." On the other hand the assumption that the modern university student or the poor student is able, even if he aspired to do so, to become an "educated man of the world" by reason of

his university training has been shown to be untenable. If the definition of an "exact scholar" is a student who has accurately acquired a mass of facts and figures then the universities might well claim that they produce such "scholars." In so far as the training in various faculties consists of a study of "abstract" or "pure" subjects the claim of the universities to provide such studies is justified.

But in allowing these claims to the universities it must be said that these conceptions, which have become traditional and have almost acquired the status of myths, ignore the relation of the universities to society and in doing so are forced to ignore at least half the teaching and training which actually take place. How does the training of recruits for the "first-rate professional service," as it has been described in a previous chapter, accord with these conceptions? What of the department of leather technology at Leeds? This, and much of the other training at the modern universities, has been examined in detail and shown to be purely utilitarian and vocational.

Even if the training given to intending teachers in the arts departments is "abstract" in nature it must be vocational in intention. The real conclusion to be drawn is that it is a totally inadequate and unsuitable training. The students at the university are supposedly part of a unit engaged in the pursuit of truth. But the truths discovered must inevitably be of very limited significance. They can but rarely be revealed as a result of intellectual adventure, nor are they likely to throw any light on the numerous problems of present-day society. Far from being free to conduct a single-hearted search for universal truths, the student is rather engaged upon investigating the actuality of the Greek particle or the necessary amount of ground to be covered in preparation for his finals.

The universities, intent on preserving their privileged position, are forced to improvise these myths to embellish or to hide their real functions. The theory that academic neutrality is an essential prerequisite of the scholar stands them in good stead. It enables them to avoid taking any open standpoint on political and social questions. But what in fact does impartiality imply in the present-day world? Society is constantly changing and developing, new forces

are moving into the forefront, the old forms of life have lost their justification. In its economic and social organization, in the moral values and cultural life of the people, society is subject to dynamic influences which are constantly changing the pattern of life throughout the world.

Progressive forces which hold out the promise of a better life are perennially in conflict with the forces of tradition and reaction which restrict development. It is in the solution of this conflict according to the needs and aspirations of the peoples of the different countries that the possibility of building a better world exists. In this situation there is no such thing as impartiality; it is impossible to remain aloof from this vast conflict. The plea of impartiality is therefore a dangerous one, and in the past has often been no more than a cloak to hide the fact that the universities have thrown their weight on the side of tradition and reaction in the social struggle.

In spite of all these fine phrases it is clear that the function of the universities to-day is essentially the limited one of providing vocational training for technicians and professional workers, or, in the case of the arts faculties of the ancient universities, vocational training for the ruling class. Far from being centres of enlightenment, culture, and learning, the modern universities more closely resemble factories; factories whose raw material is the student and whose standard product the graduate.

It is no more possible to separate the universities from the social process, to visualize them as centres where the search for true knowledge can be carried on unimpeded by the vulgar activity of day-to-day life, than it is to isolate any other institution from society as a whole. The universities to-day are wholly adapted to the requirements of the small minority which wields the power in the present social order; they are part of a social system which has outlived its usefulness, and serve to perpetuate that system. Their development is warped and their potentialities frustrated since they are separated from the people and from the vital sources of life and progress.

The universities are facing a crisis, but it is not an isolated crisis; the problems which confront them are social problems.

Education can be the strongest support and impetus for social advance or the greatest weapon in the hands of barbarism and reaction. The lack of a positive philosophy may lead to the negation of knowledge itself; that this is no blind generalization has been shown all too clearly by the example of the German universities which, while professing neutrality, were unable to withstand the Nazi régime and which have now themselves become instruments for the prostitution of knowledge and culture. Conversely the development of education during the Spanish war and the great migration of the Chinese universities have shown that the universities can be vital centres of enlightenment and development even in countries in the throes of invasion and civil war if they are animated with a new social philosophy.

The proponents of knowledge and culture must ally themselves actively with all the forces making for social progress if the values they profess are to survive, and if the conditions in which they can make their true contribution to the future of mankind are to be created. This is the challenge which the universities must meet to-day.

CHAPTER IX

THE UNIVERSITIES AND THE WAR

THE universities have naturally suffered during the war, as has the whole educational system. Although evacuation offers no complete excuse for the disruption of elementary and secondary education which took place earlier in the war, it is clear that the universities had to make sacrifices in certain directions, had to adapt themselves to war conditions, since they are concerned not only with research but with the education and training of people of the 18-22 age group. At a time when the whole future of culture, science and education is hanging in the balance, the universities should be adapted so that they can make the fullest possible contribution to the present struggle. In general, the universities have been subordinated to the immediate technical needs of industry and the armed forces. The experience which has been

gained in the scientific and technical faculties during war years is capable of expansion to the arts faculties and education departments. The granting of state bursaries in scientific and technical subjects, for example, is a step in the right direction, which points the way to further development.

It has often been said that this war is not only a war of planes, guns, tanks and ships, but also a war of ideas. The young generation is playing its full part in the factories and the services, but it must also play its part in the research laboratories and the schools. The immediate challenge to the universities is not only to train students to be technically proficient in one way or another, to train efficient organizers, to prepare good officers, it is also a challenge to train clear thinkers, imaginative and independent teachers, administrators of initiative and integrity. It is above all a challenge to re-examine their intentions and their methods and, though making their contribution to immediate war needs, to sustain and enrich the cultural life of this country.

While every man, woman and child should first be doing his or her duty in different fields to achieve victory, the universities as institutions have the duty of seeing that philosophy and learning contribute as much, if not more, to the struggle as technical skill and courage. They are doing this in various fields—in the field of health and agricultural research, in the organization of army education, in the investigation of problems of reconstruction, as at Nuffield College, to mention only a few activities of which much has already been written. But there has not been a general realization of the decisive importance of their own particular task of training the new generation of teachers, social workers, philosophers, lawyers, architects, who are needed so much to-day, and will be needed even more to-morrow. A few examples of the problems now facing the universities will serve to illustrate this point.

The first casualties due to the war were hundreds of students from London University, whose component colleges were evacuated immediately to many university towns all over the country. Although some of the colleges were able to provide additional grants to students for whom the cost of evacuation was excessive, many did not do so on a sufficient

scale, with the result that numbers of students were completely unable to afford to follow their colleges from London, and had to abandon their university studies. The State failed to subsidize either directly or indirectly the further education of these students,¹ whose college careers were therefore cut short. It is difficult to say how many students suffered in this way, but some figures give a good indication: at the beginning of October 1939 University College was reduced from 2000 to 1000 full-time students, the London School of Economics from 1000 to 500.

At the same time the provincial universities, which were not evacuated, opened the academic year with almost their full complement of students. They were not, however, to continue in this position for long, for the Government soon announced the first set of regulations relating to university students. Apart from women students, only those who were studying medicine or certain technical subjects, and who had completed certain courses, were to be allowed to finish their normal period at the university. Minor arrangements were made to enable students studying different subjects to take important examinations, but such students became liable for military service within at least six months of their twentieth birthday. Thus from the beginning of the war the number of students in the arts faculties in particular began to decline. One of the results of these arrangements was that students began to come up to the universities younger than was the case before the war, and at ages which previously would have been considered to be too young for a university education.

Another result has been the shortening of courses, in some cases to two years. One or two universities have introduced a new academic term into the long vacation period (July-September), thus enabling a full nine-term course to be completed in 2 years 3 months.

The war has affected the universities in many other ways. Many university teachers left the universities to take up war work of one kind or another, and this has inevitably led to a reduction in teaching standards, while scientific courses have been shortened and distorted to meet immediate war needs.

¹ Except in the case of certain education students.

In the last few months, also, numbers of university teachers have been called up for military service, thus further depleting the number of teachers available. The war has also largely diminished the number of research workers at the universities and in general the amount of research work other than that directly concerned in the war effort has been drastically reduced. The buildings of many universities have been requisitioned to provide billets and lecture-rooms for various branches of the forces.

In May 1941 the proposed registration for military service of young men born in 1922 and 1923 marked a further restriction in the activities of the universities. The 18 and 19 age groups provide the recruits to the universities, and clearly some special conditions had to be made to provide the universities with some personnel. Briefly the arrangements are as follows. Medical and dental students are reserved as before though reservation is conditional on satisfactory reports as to progress. Boys who wish to take a scientific or technical course have first to be recommended by a University Joint Recruiting Board, which includes military as well as university representation. These boards can recommend the deferment of military service for any given period, after which such cases will be subject to "stringent review," and the student may be allotted to technical work in the forces or industry. Most technical students finish their courses, however, even though they may be studying for Ordinary and not Honours degrees. While he is at the university the student has to serve in the Senior Training Corps, or the University Air Squadron, or in an equally important Civil Defence unit such as the A.F.S. or the Home Guard.

The regulations governing entry to the non-technical faculties are far more stringent. From October 1943 no man over the age of 18 who is placed in the medical grades I or II by the Armed Forces Medical Boards will be allowed to enter these faculties. Men under the age of 18 will be allowed to begin a course, and if they are within nine months of a major examination when they would normally be called up they may obtain postponement. Men who are medically unfit will be allowed to finish their course.

Women students who are under 19 years of age in October 1943 will be allowed to enter a university for a three-year course, and women under 20 years will be allowed to enter for a two-year course.

In each case the proviso is made that the limiting period is such that a degree or diploma may be obtained at its termination. Only women who wish to qualify for work of national importance, such as teaching and social service, will be allowed entrance.

Women under the age of 19 years in October 1943, and men under 18, will be allowed to enter the training colleges. The women students may take a two- or three-year course, whilst the men take a five-term course, at the conclusion of which they are immediately taken into the armed forces.

These conditions for entry into the colleges and universities have had a marked effect on the three main faculties.

In the medical and dental faculties the numbers have increased since the war to the point where the universities are now taking each year the maximum number of students consistent with the available teaching facilities.

In one or two universities a few students have been called up owing to inadequate work, but the great majority carry on to the final examination.

The technical faculties, especially the engineering departments, have also increased their numbers, mainly due to the institution of State bursaries. This is a scheme whereby students who prove—in H.S.C. or other examination—to be of adequate standard are awarded a bursary of approximate value £100-150 plus fees, and enter a university subject to the same conditions as any other student. The subjects in which the bursaries have been awarded vary: in 1942 chemistry students gained bursaries, but in 1943, owing to the technical man-power situation, none will be given in this subject. The bursaries have recruited to the universities many young men who would, in normal times, have been unable to afford the expense, but who have shown themselves to be quite capable of benefiting from a university training. The scheme has revealed a very wide layer of potential scientists, and is the most important measure inaugurated in the universities for some time. This system of awarding scholarships should be

extended and not remain simply as a measure which has been forced upon the universities because of the immediate needs of the war.

The non-technical faculties, which have been reduced already, will be even more drastically affected under the new regulations for the session 1943-44.

It was assumed in 1941 that very few men would enter the arts faculties, and yet in that year arts was still the largest faculty, when calculated on a national scale.

The policy is, however, one which limits the potentialities of the universities, both now and in the future. Many more teachers are needed, for to-day there are classes of 50 and 60 children in some of our schools. More social workers, youth club organizers, economists and administrators are and will be needed. Therefore, these heavy restrictions on the non-technical faculties are a short-sighted policy, even having due regard for the immense gravity of the present man-power situation.

Although the effectiveness of the universities is limited by the conditions imposed since the war, there is no doubt that, in their research and in their teaching (there are still some 25,000 students, compared with 49,000 before the war), the universities are playing a valuable part in the war.

In the schemes of army education, for instance, the resources of the universities are being called upon to an increasing extent. Certain social surveys of undoubted value have been made; facilities have been given to refugee students to carry on their studies at the British universities, as, for instance, the Polish students in Scotland. Agricultural and scientific research of value for the war effort has been instituted, and at Nuffield College the problems of reconstruction are under consideration. The specialist knowledge of many university teachers has been made use of in various ways, and all this in addition to the usual activities of the universities in training their students, technicians and others.

It is, perhaps, natural that the war has also been the occasion for an outbreak of discussion on educational reform. But, generally speaking, this has been more concerned with reform of the machinery of education than with attempts to clarify its place and purpose in a democratic society. While methods

of entry to the universities have been examined in conjunction with proposals for the reorganization of the State educational system, little attention has so far been directed to the function of the universities as a whole. There have been some exceptions, but they are not on the whole encouraging, as they tend to envisage university reform in a vacuum, quite apart from the changes at present taking place, and the changes that must come, in social organization.

For instance, Sir Richard Livingstone in his book *The Future of Education* gives a vivid description of the ineffectiveness of our present educational system; those who leave school at fourteen have mastered only the most elementary knowledge of a variety of different subjects. But while he is not opposed to the raising of the school-leaving age, he places his faith in a great extension of adult education on the grounds that young people at school, or even at the university, are incapable of understanding social and philosophical questions owing to their lack of experience of life. But this is a dangerous doctrine, for what Sir Richard Livingstone forgets is that he has drawn this conclusion about the innate abilities of youth precisely from the observed results of present educational methods at this particular period in history. The results are due to methods of education which he himself roundly condemns, describing secondary education as a "tortuous and ungodly jumble" (a quotation from Cromwell) and as a "chaos of subjects." These methods are not designed to produce people fully developed "physically, mentally and morally," who are able to understand and appreciate social and philosophical problems; on the contrary they are designed to produce workers, clerks, minor administrators, who are trained for certain clearly defined functions in a static society.

Sir Richard's analysis leads him to make an ardent plea for the revival of Hellenism and Christianity as the basis of all education, and to maintain that it is the decay of these two fundamental cultures which is the cause of our present ills: "Christianity and Hellenism are the spiritual bases of our civilization. They are far less powerful to-day than fifty years ago. Therefore, we are losing that spiritual basis, and our civilization is changing and on the way to destruction unless we can reverse the process. *Hinc nostrae lacrima.*" It

is in these philosophies that we can find the "ends" which will once more bring stability and social cohesion to present-day society.

This is essentially an admission of defeat in that it is an attempt to revert to ancient ideals and theories which arose out of quite different circumstances, and have little real relevance to the conditions of life in the twentieth century; while the proposal puts the cart before the horse, for the creation of an integrated and "purposeful" society will not be achieved by attempting to inculcate certain ideals, it will only come by releasing the creative powers of the people of to-day. The new society will find its own morality and will not need to borrow one ready made from civilization long since dead and gone, although it will certainly be able to learn from the experience of the past.

In the various proposals for the reform of the universities within the present social structure a similar vagueness is apparent. There are various schools of thought with their own analyses and proposals of what must be done if the ills of the universities are to be cured. It will suffice to take one or two examples.

Thus we have the thesis put forward recently by an Oxford teacher which would undoubtedly be widely supported at the present time. "In Oxford and Cambridge at any rate," runs the argument, "if we look back to the first decade of this century, we see a time in which the average freshman needed to be made to question and criticize the accepted views of his life." In the Christian faith and morality he found the accepted standards of life, in the Crown and British Empire the "acknowledged objects of loyalty." Thus the function of the teachers who collectively "stood for the Christian way of life" was to encourage criticism and scepticism, honest and fearless thinking.

Since that time, however, the situation has changed, the student "has already learned to criticize everything in the existing order of things, and to feel disillusioned about traditional objects of reverence and moral codes. . . . He comes to a university where it is no longer obvious that his teachers are united in reverencing the Christian revelation as the guide of life, or in regarding the established order of society as providing

a stable framework within which each man may look forward to finding his place." Evidently the students here exercised their powers of questioning and criticism to too great an extent—what is to be done about it?

The answer given is that "young men and women who are already bewildered, disillusioned and possibly cynical . . . need to be helped to see how their studies can contribute to a life worth living"; they "need to be shown that genuine students can be convinced Christians." In fact the teachers must bring the students back to the fold; then, presumably, the universities will once more assume the stable features of thirty or forty years ago. But what of the changing world outside the universities? What of the answers to the students' questions? It is not enough to evoke Christianity as a universal panacea while putting forward no concrete way in which the student can contribute towards the achievement of a life worth living.

The proposals which command the widest support are, however, those which are concerned with the "broadening" of the curriculum. These proposals generally start from the assumption that the increasing specialization of university studies is the real and, in many cases, the sole devil to be exorcised. This may be called the "neo-liberal" school of thought, which seeks a more "harmonious" or more "synthetic" education attuned to the needs of the time. Since this point of view has been well expressed by Dr Löwe in *The Universities in Transformation* it will be convenient to examine the main thesis of this book, as these opinions are very generally held.

Dr Löwe looks back with a longing eye at the education carried on at Oxford at the end of the nineteenth century, which he maintains was in close harmony with society at that time. The student at Oxford who studied Ancient Greats was studying the whole of a civilization which had very many affinities with that which existed at the close of the nineteenth century, in which he was to take a leading place. Dr Löwe's proposals are, therefore, concerned with changing education so that it shall once more achieve that harmony with society which it has lost, through, as he says, no fault of its own, but through social changes which have rendered such an education

no longer satisfactory. Education to-day, he says, produces only the "expert," while it should produce the "enlightened expert" who will understand society and the part he has to play.

Although Dr Löwe calls for "radical social changes" and places his faith in "democratic planning," by implication he wishes to preserve the present social system in its essentials. Hence, since he regards the universities as "social agencies," they become institutions designed to buttress the present social system and the contradictions with which he is faced become insoluble. Thus he solves most of his problems with a stroke of the pen by assuming that post-war society will be relatively stable both socially and economically, a most unlikely contingency if history has any lessons for us. Granted a stable society he then proceeds to put forward proposals for evolving a "harmonious" education. This is a neat way of solving the problem of the future of the universities in a society which is constantly changing its character, but it will scarcely do.

Dr Löwe falls into several pitfalls which are common to all those who seek to achieve the good society by means of educational changes. The more obvious of these may be pointed out. Thus he admits that he is only concerned with the education of an *élite*, of a small number of people who will run the country much as they do at the present time. He argues against increasing the number of students at the universities because of the political danger caused by unemployed graduates. He is, therefore, forced to limit education severely in the interests of the stability of the society he wishes to preserve.

Again Dr Löwe makes several proposals concerning a more "synthetic" university education based on "human" studies such as psychology, economics, geography and so on, which would be of a general character as opposed to present specialization. But here again, since there is no theory of the unity of knowledge accepted at the universities, it is difficult to see how such a synthesis would not become merely a number of different specializations, and suffer the same fate as Modern Greats at Oxford which was based on similar theories. Dr Löwe recognizes this difficulty, but his only proposal is that

a few brilliant men should gather together in Oxford and remain there permanently working out the relations between different spheres of knowledge and passing on their results to the university teachers. But who are these supermen to be who, from their studies in an Oxford college, are to interpret the sum-total of human knowledge, and to perceive at last the illusive unity which has escaped the universities for so long?

We have dealt with Dr Löwe at some length because he represents a school of thought which is widely supported. But it must not be forgotten that while these discussions about the future of the universities are taking place the universities themselves are changing rapidly under the impact of the war.

There is a body of opinion, in the student movement, which has tried to face the facts resolutely, and has worked out its own ideas about the future of the universities. What, then, are the proposals of the students?

CHAPTER X

THE STUDENTS AND THE FUTURE ¹

THE student movement had begun to realize the dangers of Fascist domination during the period of the Spanish war, but the general outbreak of war in 1939, and especially the subjection of Europe by the Nazis in 1940, aroused the great majority of students to a social consciousness and a sense of responsibility which far exceeded anything that had gone before. The totality of the war was understood, implicitly at least, from the beginning, and this made it possible to integrate the immediate needs of the war situation with ideas about the ultimate future of the universities. The students' criticisms

¹ This chapter describes the activities and ideas of the more active sections of university students during the war, and throughout the chapter the collective term "students" must be taken to refer to these sections. The main sources of information have been the reports, published by N.U.S., of the Annual Congresses of the N.U.S., 1940-43, and echoes from these reports will be found throughout this chapter, direct quotations being acknowledged in footnotes.

of the universities centre round the fact that the universities have a function in society and a duty to the people which, owing to the restrictions on entrance and the nature of the teaching, they do not fulfil. Their hatred of Fascism is based on the fact that its victory would mean the total destruction of science and culture, of freedom and progress. They believe, therefore, that the complete defeat of the Fascist Powers is the essential prerequisite to the establishment of a planned, stable, and progressive society.

In the attainment of this victory over Fascism, the universities clearly have an important part to play, and in order that they may efficiently fulfil their rôle, certain reforms become necessary. These reforms are, in addition, steps leading to universities which are consciously planned to make the maximum contribution to a peaceful community. Thus the two objectives, of winning the war and the peace, are envisaged as being inextricably bound together.

This single view of the situation has been specially noticeable in the sphere of student activities. There are two ways in which students may effect changes in the universities: by expressing a point of view with a united voice, and attempting by negotiations, publicity, and other means to have it accepted by the authorities; by directing day-to-day activity into such progressive channels that they themselves increase the scope and effectiveness of the universities.

In the latter sphere the ideal is a student community representative of the people and actively concerned with the social, political, and cultural issues of the time. The last few years have seen notable advances made. There has been no tendency for the students of this country to hide behind the walls of the universities and let the world pass them by. They have broken down the old traditions of academic isolation, and have largely undermined student apathy. It has been in the course of making these changes that they have formulated their proposals for reform. Therefore to assess the value of student action, we must examine both the progress made in increasing the contribution of the universities to society, and the instances where reform has been obtained on immediate issues by direct negotiation.

In working out their conception of the rôle of the universities in war-time, students have drawn on the experience of Spain, China, and, more recently, the Soviet Union. The changes in these countries during the periods of invasion have illustrated the social value of a university in war as well as in peace. In China tremendous importance has been assigned to education, and the great collective efforts made to maintain the universities under very difficult conditions are well known and enthusiastically supported in student circles in this country; the heroic treks of universities bombed out of their original sites, and the practical application of the slogan "every cave a classroom," contain the real essence of a new spirit of education. In Spain, despite the combined onslaught of Franco and the Moors, Germans and Italians, the Spanish Republican Government took special pains to provide for the children and built thousands of schools during the three years of war. Similarly university education was expanded by the creation of workers' institutions (*Instituto obrero*) for those between the ages of fifteen and forty-five, which were considered to be of sufficient value to the community to justify the payment of a monthly wage to the students.

Finally, in the U.S.S.R., while many students are inevitably at the front or working in factories and hospitals, tremendous efforts are being made to develop and increase the contribution of the universities to the struggle of the people. A speech by a member of the Soviet Academy of Science to medical students in Moscow usefully crystallizes the spirit of these three countries.

"We are beginning our studies in days that will go down in history. The whole world is rising to fight for freedom, for civilization, for science. Mankind has taken up arms so that millions of young people like yourselves might be able to continue studying and acquire knowledge and culture, and so that your fathers, brothers, and sisters might be saved from the Fascist slavery which threatens them. Years will pass and you will be proud to recall that you lived in the days of the great patriotic war. With even greater pride you will recall that you took part in it, for each one of us working in the rear is helping the front.

"I know, I feel, that your hearts are burning with the desire to

be right in the thick of it. That is a noble desire, but you have a different task to perform. You must study—go on studying in defiance of the enemy who is endeavouring to spread confusion in our ranks with the wings of death.¹ We must study in spite of everything. Study twice and three times as hard as in previous years.”

The theme of the above speech has also been the central theme for student activity in this country during the war. Many instances will be given later of the work done by students outside the lecture-room and the laboratory, but they have constantly recognized their main task to be hard academic study. At Easter, 1943, 1000 students stated: “Our own share in the great struggle for victory consists in hard and consistent work to qualify for full service in the forces, science, medicine, education, and other spheres. In our most important field of work we must achieve the greatest possible efficiency.” At the same time, the methods of study produced by high specialization in the schools, and by the competitive examination system, were condemned. Many students are concerned only with amassing a vast quantity of data in order to push ahead of their colleagues in the race for jobs, whereas the real duty of the student is to ensure that, by the pooling of ideas and knowledge, the entire student body should be as well trained as possible. On this basis, co-operative work among students, and assistance to those finding themselves in difficulties, are steadily increasing.

The faculty societies have already changed radically from the pre-war period, and are now beginning to take the form of “tutors” to the students. The most valuable methods of helping students to reach a high academic standard are, however, reached only by staff-student co-operation, and nationally, and in each of the colleges and universities, students are attempting to form closer links with the staff. Curriculum reform, the institution of tutorials and discussions in the place of lectures, and a widening of student interests have resulted.

The faculty and departmental societies have also succeeded in affecting courses by other means. During the war they have organized less academically abstruse lectures than formerly, and have devoted more time to the wider aspects

of the particular subject. Inter-society meetings have helped to break down the false isolation of the various sections of human knowledge, and to relate them to each other and to human society as a whole. Such improvements in the system of study, co-operation with the staff, and discussions on social topics, have inevitably led to a broadening of university education.

The firm belief in the necessity for constant academic work has also been expressed in the demand for a fourth academic term during the summer vacation. The N.U.S. has stated: "In war-time a student has to train himself in the shortest possible time to take his place as a member of the forces of democracy against fascism. The primary aim of the 'Fourth Term' is to cut down the university course, to increase the amount of organized study carried out in the short time available. The peace-time advantages of the summer vacation are part of the student's sacrifice for victory."¹ The extra term means that a normal degree course of nine terms can be completed in two years and three months, and it is estimated that by 1944 the majority of colleges and universities will be operating this or a similar shortening system. Good relations between staff and students again form the foundation for this innovation, since it creates many difficulties which can be met only if there is full co-operation between all members of the university.

The various forms of national service instituted since 1939 have provided a sounder basis for student activities along lines tending to draw the universities closer to the community as a whole. The kind of work the students wished to do was different from the old slumming parties, carried on in a spirit of condescension with an attitude of "knowing what's best for the lower classes," and the air offensive against our towns pointed the way to a real identity of interest. Students said: "We must identify ourselves with the people, learn from them, and make our contribution in a spirit of equality. We must recognize that our interests are identical with those of the whole people."² This spirit was soon translated into practice.

¹ *The Fourth Term.* N.U.S.

² *Students and the Blitz.* N.U.S.

The first large-scale opportunity occurred when London and, later, the provincial cities were heavily raided. During the Christmas vacation, 1940-41, about 120 students worked in Stepney in air-raid shelters, rest centres, and hospitals. They came from all parts of the country and stayed from one to five weeks. Substitute staff were provided for a number of rest centres, educational talks, discussions on current events, and lectures on health were given in air-raid shelters, and a survey of shelter conditions in the area was made and a report produced. The students who did this work also housed and fed themselves. In Manchester, Liverpool, and the other large university towns similar jobs were done, many hundreds of students giving up all their spare time. Medical students staffed first-aid posts, engineers helped with the rescue squads, teams of men drained Anderson shelters, whilst in some towns the student unions were opened for bombed-out people, and washing and bathing facilities made available. In particular were the reports on shelter conditions very useful, since they enabled mistakes to be noted, and in certain cases definite improvements resulted.

At the same time educational and social work was carried on in towns and villages in reception areas. Surveys of local conditions were made in conjunction with local organizations, and help given to the billeting authorities. Groups of students toured areas with dramatic and variety shows. Many students are helping with army education, in particular by providing "student brains trusts." Other contacts have been made during the course of day-to-day spare-time work in hospitals and factories, since nowadays most student unions have a permanent organization to mobilize their members for the war effort. In some colleges a student workshop has been established, and small parts made under the direction of a local firm. Elsewhere machines in particular factories are constantly staffed by rotas of students. During the long vacation this work is intensified, and the summer of 1942 saw many thousands working on the land and in factories, or helping with education.

One particular aspect of this type of student activity needs special emphasis. The years prior to the war saw an increasing solidarity between students and other young people of their

age, which has since developed rapidly. In several towns students initiated the formation of local youth committees, uniting all young people in the area, which, in co-operation with the official Youth Committees, have done splendid work in the educational and social spheres. Many students work in youth clubs, and special schools have been organized to train more students to undertake this work.

These developments have revitalized the main student organizations. The annual Congresses of the N.U.S., which before the war had an average attendance of 150, attracted 600 students in 1940, 1100 in 1941, and 1500 in 1942—a symptom of increased interest in social and academic affairs brought about in part by the student societies. In preparation for these Congresses study groups were held attracting people of diverse views, inter-society meetings became frequent, and local conferences were organized in many places. The student societies were seen as the main opportunity to bring right into the university all those political, social, and cultural problems which interest the present generation, and in this way to supplement the formal education. The difficulty in obtaining national speakers of note, and the magnitude of the problems to be discussed, necessitated far more collegiate activity than before. Isolation into cliques became far less noticeable, and debates and open forums were very popular. The subjects discussed at the congresses were directly related to the immediate problems in the universities, and thus each year a large number of active “missionaries” returned from Congress with a policy for student activity. In this way the congresses have become the focal point of the student year, and by this year, 1943, have reached the stage where a real concrete programme of action is produced.

There is still a considerable body of students who are not covered by the society activities; but compulsory S.T.C. training, the organization of lectures during fire-guard duty, and the wide acceptance of spare-time and vacation war work have eradicated entirely the anti-social student of pre-war years. The intellectual life of the universities may to-day miss those dazzling stars which flashed across the pre-1940 period, but the general appreciation of social and cultural issues is far higher. Students have also shown a consistent

spirit of international friendship, and have attempted, by participation in the work of international youth bodies, by the creation of an International Council of Students, and by contacts with Soviet and American student delegations, to enrich their studies with the experiences of the world student movement.

Thus the efforts of students to improve the universities are taking concrete forms, and are centred round the belief that the universities are important social institutions with a valuable rôle to play no matter what the general political situation. This belief was expressed from the outbreak of war by the demand that the universities and colleges should be maintained and not allowed to seep away into ineffectiveness as during the 1914-18 War. It would be ridiculous to claim that this attitude of students produced the war-time regulations, which although stringent have, with few exceptions, realized the value of higher education in the present situation. The student movement did, however, appreciate the necessity for intellectual life, research, and free discussion, and understood the urgent need for trained professional workers of all categories. The new and grave responsibilities thrown on to the universities and colleges were seen as a changed aspect of peace-time responsibilities, and the limitations which had been noted in peace were even more evident in war. War-time problems have therefore led naturally to discussion of the reform of the universities, and N.U.S. congresses and conferences have provided regular opportunities for proposals to be worked out in a communal way. The following is a summary of the policies adopted.

THE STUDENT PROGRAMME

The universities and colleges, no matter what the state system, form an integral part of the whole educational process; as such they can be reformed only in conjunction with the general reform of education. Furthermore, both universities and schools are closely related to the social process, and a radical alteration in society is necessary if they are to be fully effective. Democracy, which exists in England in the political field to a large extent, must be extended to give far

more economic equality. The resources of the country should be utilized for the benefit of all the people, and production planned to meet the needs of the community, this involving the abolition of private profit as the mainspring of industry and the removal of monopoly from private hands. Under such conditions the schools could become the fountain-head of the democracy for which we are fighting, and indeed, if the attacks of Fascism are to be overcome completely, the democratization of the educational system is essential.

The School System.

The present school system, with its injustices and inequalities, is founded on class privilege, and must be replaced by a system in which there is equality of educational opportunity for all citizens. In detail this involves:

1. Local authorities compelled to provide nursery schools for all children, with appropriately trained staff.

2. Free compulsory full-time school attendance up to the age of sixteen years, maintenance grants to be given where necessary.

3. Maximum size of classes to be thirty pupils.

4. Common system of primary education, with parallel schools of equal status at the post-primary stage, each child receiving the type of education best suited to his talents and inclination. Transfer from one type to another to be possible at any time.

5. Public schools and all privately owned schools to be brought entirely under the central scheme.

6. Free meals and free compulsory medical and dental services in all schools.

7. Abolition of dual control and its replacement by a unified administration.¹

The impact of the school system on the universities is not confined to such considerations as these. The reform of university entrance standards requires "equality of opportunity" to be translated into practice by the provision of adequate buildings, teachers, facilities, and finances. The post-primary or secondary schools, providing compulsory

¹ A programme along these lines was officially adopted by the N.U.S. Council in February 1943.

education for all up to the age of sixteen, must also provide free training, with maintenance grants available, for those pupils for whom further full-time education is deemed justifiable. This extra period should be given on the basis of merit alone, and transfer to full-time education should be possible for all those carrying on in part-time day continuation schools.

The changes needed in university curricula, though facilitated by these developments, call also for complete reorganization of the teaching in primary and secondary schools. The present school examination system, and its corollary, early specialization, brings about increasing specialization in the universities, which in their turn react on the schools with a continuously stultifying effect. This vicious circle must be broken simultaneously at both stages.

The fundamental reforms outlined above, especially the abolition of all fees, will destroy any excuse for the examination system of to-day. Curricula should be altered so that all pre-university education is of a general character. All pupils should be educated in the sciences, one or more foreign languages, literature, history, music, the arts, and social subjects. General science, for instance, must not be taken to mean the lumping together of two separate courses in physics and chemistry, but should include a study of biology, geology, astronomy, and practical mechanics, integrated together as far as possible. Similarly history, geography, literature, and the elements of ethics should not be treated in isolated compartments. No specialization, on the side of science or the humanities, should be allowed. This is a very brief picture of the education envisaged as a foundation on which the universities and colleges must be built.

Entrance to Universities.

Entrance to the universities and colleges must be awarded on one criterion alone, that of the fitness of the student to benefit from this particular type of education. Before the war only about 0.6 per cent. of ex-elementary school pupils managed to reach the universities compared with some 20 per cent. of non-elementary school children. The state bursaries awarded during the past two years have indicated

that a large proportion of the present secondary-school students are of sufficiently high standard to benefit from further education, and recent social studies have proved beyond doubt that further untapped sources of talent will be found when the transition from elementary to secondary school becomes general.

It is not sufficient, however, to draw solely upon these schools, since many people taking part-time courses may be fully fitted for the universities and colleges. Professional and industrial workers who show particular interest and aptitude for education should be enabled to enter higher educational institutes, if necessary passing first through special pre-training schools. At present there are, undoubtedly, large numbers of such people who are denied a higher education by limiting regulations and financial difficulties. The regulations are easily altered, and the provision of adequate finances will be necessary if progress is to be made. Ideally university education should be free, with maintenance grants provided for all students, and the least that must be done is to extend the number of scholarships and grants to several times their present number. The amount of money given to the student should be sufficient to enable him to live in reasonable comfort so that financial worries will not engage his attention to the detriment of his education.

The Curriculum.

In addition to reforms of the methods of entry, reforms in curriculum will make new functions for the universities possible. Changes in the present economic and social order, which restricts university education, must be followed by radical alterations in academic teaching. The conception fundamental to proposals for this new teaching is that education must be related to social needs. The student is primarily a citizen, both during his time at the university and later on in whatever profession he may follow. To-day a sense of social responsibility is achieved by students despite the universities rather than because of them. In certain departments, particularly in the training of teachers, whether in the universities or the training colleges, there has been a deliberate attempt to prevent political discussion and the study of

economic and social problems which is only now being overcome.

In the future the courses must be so planned that from them arises not only a knowledge of the particular specialism, but also a real understanding of its place in society. Furthermore the rôle of professional workers and the intelligentsia must be made clear. They are not a separate section of the nation, free to develop in isolation whilst the rest face tremendous daily problems. Rather do they constitute a section of the community particularly concerned with these problems, which must study the experiences of the people, and contribute from their knowledge to the solution of the problems.

Throughout the period of education, therefore, knowledge must be acquired in its social context. The linkages between various subjects must be made evident by the teaching, since the social relations of any particular subject cannot be understood if it seems isolated from all other spheres of knowledge. While the main effect of this isolation is to obscure the real relations of any subject, both to human society and to the body of knowledge, it also makes teaching of the specialism itself a complex yet incomplete matter. It is only possible to integrate one field of knowledge with another when the fundamentals of both are understood. In the universities the first year should be one in which science is taught to all students, along with history, economics, and a foreign language. In the later years there must be concentration upon one side or another, but the physicist, say, should never be allowed to treat his subject as an end in itself, but should constantly visualize its application to and effects on other sciences, and how the development of other sciences affects physics itself.

These principles are best illustrated by a brief study of the proposals made for each particular faculty. In science the first step should be the removal of those false divisions between subjects which lead to narrow erudition, and the institution of a general approach to science as a whole. This general course should cover the bases of the physical sciences, and in addition the history and philosophical implications of science. Science history must be taught so that the social causes of

scientific investigation are shown clearly, and current philosophical theories are given a true perspective in the light of the progress of society. Lectures and discussions should not be treated academically, but integrated with practical work and industrial applications. Laboratory training must be revised so that experiments are less of a routine nature, and give more opportunities for initiative on the part of the student. During the whole of the course the ultimate objectives of the students should be kept in view, and periods of practical training provided in the industries or professions they intend to enter. Science students should work in adult and youth organizations to help to develop the science education of the community as a whole. Finally, all students must be encouraged to take part in the activities of professional scientific organizations so that they may participate in the control which will be necessary if their work is to be properly applied.

The faculty of medicine requires similar reforms. Pre-clinical training in botany, zoology, chemistry, and physics is to-day far too academic and a general course in the study of life in all its forms would be far more useful. During clinical training subjects should be more closely related to each other and the syllabus revised to eliminate unnecessary detail. There must be more preparation for general practice, and emphasis on preventive medicine rather than curative. The study of social problems, philosophy, industrial and public health should be included in the curriculum, and in general far more co-operation with the faculty of social science is necessary. Finally, a critical attitude to medical propaganda should be developed, and students organized to help to combat such social evils as tuberculosis and venereal disease.

The study of the arts should widen the knowledge of the ways in which men of all nations have thought, felt, and acted on lines other than our own, and of the social, intellectual, and psychological problems which have arisen in the past. This knowledge should be used to view present-day society in its proper perspective, and to help in the solution of current problems. Subjects must be interrelated—for example, history, economics, and geography must be closely

connected, and some study of history and philosophy should be incorporated in literature courses. The teaching of history cannot be separated from existing social conditions, and the syllabus must be revised on a non-national basis. Literature courses must develop the critical and creative faculties rather than the memory, and philology should be treated in an historical manner. Courses in classics should be viewed less from the point of view of translating pieces of literature and widened to cover all aspects of ancient civilizations. Corresponding adjustments are needed in the other departments. Finally, all arts students should work for a society in which true cultural values can be realized.

Social science should form a part of every course, and, especially in those departments where it is the central subject, its study must be closely related to social needs. Practical work and training, including participation in social surveys, should be integrated with academic preparation, and all students should be taught psychology and social administration. In the departments of engineering there must be far closer contact with industry and the provision of long periods of industrial training. The curriculum should include the study of industrial conditions, administration, and planning.

Although policies in more detail than these have been worked out for other subjects, one final example will suffice to indicate student opinion. Any educational programme must be sterile unless teachers are trained to work the system. Intending teachers should, whether attending universities or training colleges, receive a four-year course, the first part of which gives a general education in sociology, psychology, general science, and politics. More opportunity must be given for individual research, and all students should work in educational spheres such as youth clubs, army education, or nurseries. The present binding grants, whereby students have to promise to take up teaching as a profession before entering on their training, and even in some cases have to guarantee not to marry for three years, must be replaced by adequate scholarships with no limitations attached. In the selection of teachers as great attention should be paid to personality and human attributes as to specific academic qualifications, and the conditions in the profession, both from

the point of view of salary and social standing, should be more fitting to the responsible position teachers hold in society.

Methods of Teaching.

Recognition that the scientist, doctor, or teacher cannot assume a position of ethical neutrality in society, and must therefore concern himself with moral and political questions, alone calls for changes in university teaching methods, even if the present system did not stand condemned by its own criteria. Methods of teaching should be changed in order to develop the free capabilities and critical faculties of the students. The first step in this direction must be the provision of people specially trained for teaching in universities and colleges, and not chosen on the basis of their research experience as at present. The lecture which reproduces current text-books must be cut out of the courses, and there should be a liberal distribution of books and printed lecture notes or synopses. Library facilities could well be increased to help in this field.

Teaching should consist far more of discussion on the basis of previous reading, informational lectures being reduced to a minimum. Seminars, in which students take a full part in discussion, and tutorials should be increased, whilst individual tuition should be provided on as wide a scale as possible. Such reforms would eliminate the present rigidity in methods, and make for a more flexible system which appreciates students as responsible people who wish to make the most of their training, and is designed to assist their individual work and development. Such changes are essential if graduates are to be capable of independent judgment and able to apply their knowledge and abilities in new situations.

Examination System.

The examination system, revised to fit in with these reforms, would be a test of adaptability and intelligence rather than of memory and speed of handwriting. Practical work done during the course, and any individual work completed, should be taken into account. Oral examinations and written tests should be considered with this for the final assessment.

In the formulation of curricula and syllabi, and the organiza-

tion of teaching methods and examination systems, students have a contribution to make. New regulations and adjustments will constantly be required, and it is essential that the student view should be heard. Therefore staff-student committees should be instituted based on the departments and linked up, first in faculty groups and finally on a complete college basis. They should have administrative powers, not being advisory only as at present, and should have the double function of advancing university education and of developing social responsibility among the students.

Technical and Training Colleges.

The reforms so far outlined, though applicable to any higher educational institution, have been based mainly on experiences in the universities. There has developed, however, an attitude to the technical and training colleges which is fully consistent with the programme. At present these colleges are isolated from the universities, have fewer facilities, and are regarded as giving an inferior training. In the future they must be on a par with the universities in matters of entrance, curricula, and degree standards. Co-operation between them and the universities must be intimate and continuous, and transfers of pupils from one to the other should be made possible. Higher education would thus become an entity rather than several separate categories of institutions.

Students' Physical Welfare.

Since the universities and colleges will be responsible for young people over a period of four to seven years, it is essential that they concern themselves with all sides of the individual's development during this period, which is, for most students, a critical one. They must therefore ensure a high standard of physical health and well-being among the students. The universities have been considering this question during the past seven years, and their proposals are of great interest. Before the war many schemes were being planned which had to be cancelled in 1939, but the need for them still exists.

The colleges form compact units, in which the student works, plays, and in many cases lives, and hence they are particularly adapted to complete schemes of preventive

medicine. The policy advocated by the students falls into three parts—measures to promote a higher standard of general health: a scheme for regular physical examination and immunization against certain diseases: a contributory scheme for the treatment of illness. These will be outlined very briefly in turn.

Living conditions should be subject to regular inspection and supervision by joint committees of staff and students, and diet and housing standards set up and maintained. This must be done, as the rest of the health programme, in conjunction with similar health schemes for the community as a whole. Facilities for physical training and athletics must be made freely available, and each college should have a P.T. instructor specially trained for university work. Although compulsory participation in some form of physical exercise would be undesirable, a similar effect may be achieved by education in the principles of hygiene and biology; regular lectures on health should include such topics as the importance of exercise, sleep, and recreation, and the medical officer of the university should teach the elementary facts of disease, form and function, and sex. Eventually, however, a great deal of such education should take place in the pre-university stages.

Every university should have a full-time, paid medical officer, who, with suitable assistance, will examine every student on entry, and at regular intervals afterwards; an X-ray film of the chest, in order to assist early diagnosis of tuberculosis, is essential to the examination. The object should be to detect chronic diseases, physical defects, or malnutrition, and a recognized standard record should be kept of each student. Inspection of eyesight, hearing, and dental condition should be included.

Facilities for the diagnosis and treatment of everyday illnesses should be available under a contributory scheme. Fees would be collected with tuition fees by the college authorities, and the payment would be compulsory. If the Beveridge Report were implemented, the students would be provided for as ordinary citizens: otherwise a plan along similar lines would be necessary.¹

¹ See *Memorandum on Student Health Service*. British Medical Students' Association.

Students' Social Activity.

The initiation of such a health programme would go far to ensure that the graduate left the university healthy in mind and body and would have a profound effect on the intellectual and moral life in all the universities and colleges. It must be supplemented, however, by provision for a full social life. The liberal regulations previously suggested would be of great assistance in this connection, as would the removal of financial difficulties; the reasons why 70 per cent. of students have not in the past taken part in sporting activities, and 50 per cent. have even ignored social functions, are lack of time, energy, and finances. Certain limitations, however, do not fall into these categories. Of recent years students have been prevented from holding meetings by various college and university authorities, and the proctors of Oxford and Cambridge have been particularly rigid and undemocratic in their restrictions and vetoes. If the students are to make full use of their opportunities at the universities there must be complete freedom of discussion, organization, and publicity. Unless they are able to hear and express all points of view they will not be in a position to make their own judgment on the problems that face society, and so themselves. Though many universities have no restricting rules, there have been enough cases in the past of bans on discussion, organization, and student newspapers, to illustrate the bad effects of this curtailment of liberties. Such censorship is unworthy of the universities and a direct menace to their development as institutions with a responsibility to society.

In student hostels there should be far more scope for self-government, and students must be represented on all hostel committees. Costs of residence should be drastically reduced to be within the means of all people, since hostels are undoubtedly of value in the social and intellectual life of the university community.

Other lines along which university life can develop are adequately illustrated by student activities during the war. Their common basis is that the student enjoys a privilege by attending a university which carries with it certain responsibilities. An essential condition of his university education is

that he should strive continuously to improve the universities, and should participate in any movement outside them which aims at bringing about a society in which they can be fully effective. This necessity for political action has been the keynote of most student conferences in the last few years. It is of little value trying to reform the education system if the need to reform society is realised only in an academic way. Direct work among the progressive forces in society has been, and should be, a fundamental principle for all members of the universities.

International Co-operation.

Closely related to these considerations is the question of international co-operation. Education must itself be international in outlook so that the bigoted prejudices of the present day are avoided. A true realization of the value of one's national culture can be found only amidst an appreciation of the forward movement of humanity as a whole, and in relation to the achievements of all civilized nations. In setting such a standard, the universities will have an important part to play. Regular exchanges of students between the nations must be a feature of post-war education, and special provision should be made to cater for large numbers of foreign students in this country. International co-operation between students should be extended to cover all members of the universities, and professors and lecturers encouraged to make international tours. These and similar measures would ensure an outlook which would make the misunderstandings of to-day impossible. During the immediate period after the war the universities in such countries as Britain and America, where material destruction has been relatively slight, should cement international friendship by giving the maximum possible help to the higher educational institutes of Europe, the U.S.S.R., and China. Many have been destroyed and their equipment stolen, and immense efforts will be needed before they can reoccupy the place in world culture which it is essential they should fill.

Post-Graduate and Research Work.

Other aspects of university reform have not entirely escaped attention, though proposals are so far somewhat tentative and

sketchy. Research work in the universities and colleges should be planned on a national scale, and information exchanged with research workers in other countries. In general the work should cease to be sponsored by private firms and should be published if the standards reached merited this. Post-graduate education and research should be interrelated, and special courses designed for people coming to the universities from industry. Theses in post-graduate syllabi should be far less academic and abstruse in character, and correlated more with practical experience. Extra-mural education should be extended along the lines developed since the war, *i.e.* more week-end schools on particular subjects, and co-operation with the W.E.A. and army education authorities. Work of the type carried on by the W.E.A. should be extended and nationally financed. Students should be encouraged to help in all such work, which should form an important part of adult education.

Adult Education.

The education of children up to the age of sixteen has already been mentioned, but there must be a national policy based on the recognition of education as being lifelong, and providing facilities in accord with this belief. Continuation schools for young people over sixteen should replace entirely the present night-school system; attendance should be compulsory, and financial assistance given so that no pecuniary loss is incurred. More youth clubs should be set up, governed democratically by the young people themselves, in which social affairs, politics, music, drama, and the arts can be approached in a practical way and creative efforts encouraged. In these clubs students should play a part, not as superior leaders, but as individuals with a contribution to make to the efficient running of the club.

Graduate Employment.

Finally, the economic situation prior to the war and questions about the economics of the post-war period have led to a consideration of graduate employment. In the past large numbers of graduates have been unemployed, and many more misemployed. The fundamental solution to this lies

in the development of a society in which the professional and intellectual workers will be used for the benefit of the community as a whole, and where a rational and planned approach to all employment is a *sine qua non*. There has always been a great need of doctors, scientists, and teachers, and unemployment in these professions has been the result solely of an inefficient and undemocratic social system. Given a properly organized society, it will be possible, by the provision of vocational guidance and the extension and national co-ordination of the University Appointments Boards, to ensure that each graduate obtains work suitable to his personality and qualifications.

Finance.

This programme of reform is clearly incomplete without mention of the financing and control of the universities and colleges. The main source of finance must be the Government, which should provide grants of such a magnitude that the various institutions are free to develop and extend their facilities, undertake experimental work, and give to their staff adequate salaries, without having to depend upon private charity. There should also be some measure of central direction, so that entrance standards, degree standards, and general functions are nationally planned. This could be achieved by a system leaving considerable autonomy to the individual universities and colleges to use methods and carry out work best suited to themselves.

Conclusion.

The policy put forward by British students thus includes a mixture of long-term and immediate reforms, and covers also those aspects of social change without which no development of the universities would be possible. Whenever such topics as health or political freedom have been discussed, it has been emphasised that the health and freedom of the student depend on proper health services for the people as a whole and real freedom of Press, speech, and organization in the national community. Some students, it is true, remain apathetic or indifferent to such problems but, despite this limitation, there is a growing movement in the universities

which has a vital attitude to social and cultural questions and to the part that the student or graduate can play. Political and religious differences have not caused rifts, and the most controversial subjects have been discussed with tolerance and understanding and a genuine desire to find truth. In working towards their aims students have had the active assistance of the more progressive professors, lecturers, and teachers, who, with their wider culture and experience, can be of tremendous assistance to student societies.

In the introductory chapter of this book a number of questions were posed concerning the position and activities of the universities to-day. It is true that the proposals of the students do not answer all of these questions, nor are they sufficiently detailed to provide a blue-print of the future pattern of the universities. Such a task could be carried out effectively only by the co-operative effort of many people with experience of all sides of the industrial and social system, and after the amassing of the necessary social facts and figures. Nevertheless the proposals made indicate the main lines of advance. They show at least the beginning of a rational attitude to the universities, which takes into account the social, scientific, and economic factors operating at the present time. They substitute for the present lack of conscious aim clearly defined objectives closely related to the needs of the modern era, which must be attained if the universities are consciously to develop all sides of their work in fruitful directions.

They show finally that the spirit animating British students is fundamentally opposed to Nazism. The dictators are the worst enemies of youth, who see their hopes and ideals for the future menaced by his greedy imperialism. Young people in the British universities are pledged to put their utmost into the struggle for the destruction of Fascism—the immediate task which must precede the building of the “good” society they are working to attain. It will be a society in which the hopes and aims of man and the possibilities of material and cultural advance are no longer frustrated and repressed, but where culture and science, and so the universities, will have free and full possibilities of development in accordance with the needs of the people. For the universities, and all that

they stand for, can only reach full stature when there is social control over production and distribution, and the progress of society is planned in the interests of the whole people.

Under such conditions the universities will draw to themselves the best of the nation's youth, for equality of opportunity will be a reality and no longer a phrase. Apart from training them as efficiently as possible for their jobs, they will equip them with the knowledge and the social and scientific understanding necessary if they are to be acutely aware of the problems facing society, to realize the necessity for action, and to apply their talents in the service of the community. Research and teaching posts will be held by men and women with the best minds in the community, who are capable of adapting themselves to new conditions and new problems. The universities will also be intimately concerned with all industrial, economic, political, social, and cultural movements. They will use their resources to raise the standard of living in the most general sense, and so to provide the conditions for the development of human personality which is the end and aim of such activity. By their educational functions they will become centres of a vital and creative culture, shedding their light over thousands and millions of people in their locality, closely linked with daily activities and problems, and essentially, therefore, at the disposal of the people.

Such could be the future of the universities—a future they will surely attain if they ally themselves with the forces of progress all over the world to overthrow the enemies of culture and science.

